Melton East

Precinct Structure Plan

Aboriginal Cultural Heritage Impact Assessment

Note: Redacted Version

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Report prepared for: Victorian Planning Authority
Registered Aboriginal Party: Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

UNEARTHED HERITAGE

Revision History:

Revision	Revision Date	Details	Authorised	Comments
1	27/4/22	Preliminary draft	David Mathews (UHA)	
2	13/5/22	Comments provided by VPA	David Mathews (UHA)	
3	22/8/22	Updated to include results of the field survey	David Mathews (UHA)	
4	23/8/23	Updated to include response to WWCHAC and VPA comments	David Mathews (UHA)	
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Acknowledgement of Woi-wurrung Traditional Owners

We acknowledge the Traditional Owners of the lands, waters, seas and skies considered in this report, the Wurundjeri Woi-wurrung, and whose ancestors are described and mentioned, and we pay our respects to all their Elders, past, present and emerging.

Aboriginal and Torres Strait Islander people should be aware that this report contains names and words of deceased persons.

In addition, some quotations and references contain terms or views that should not have been acceptable in the times when they were written, and certainly are not appropriate now.

Cover photo: Aerial image courtesy Nearmap

Abbreviations

ACHIA	Aboriginal Cultural Heritage Impact Assessment
ACHRIS	Aboriginal Cultural Heritage Register and Information System
FP-SR	First Peoples – State Relations
HA	Heritage Advisor
LDAD	Low Density Artefact Distribution
PSP	Precinct Structure Plan
RAP	Registered Aboriginal Party
UHA	Unearthed Heritage Australia
VPA	Victorian Planning Authority
WWCHAC	Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

Executive Summary

This report is an Aboriginal cultural heritage impact assessment (ACHIA) prepared for Victorian Planning Authority (VPA) to inform planning for Melton East Precinct Structure Plan (PSP). The Registered Aboriginal Party (RAP) for the study area is the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC).

The Study Area

The Study Area encompasses c. 1,004.85 hectares (ha) of land extending c. 5.4 km from the eastern outskirts of Melton in the northwest to Leakes Road in the east and c. 2 km from Western Freeway in the south to Kororoit Creek in the northeast and Melton Highway in the northwest. The Study Area encompasses Kororoit Creek, former swamp locations and is within 1 km of Ryans Creek and Toolern Creek to the west.

Desktop Assessment

Following the desktop Assessment, the following observations can be made:

- The study area is located on Woi-wurrung Country within the clan boundaries of the *Kurung jang balug*;
- Kororoit Creek is documented as being the boundary between the *Kurung jang balug* and the *Marin balug*;
- There are currently six Aboriginal places registered in the study area and an additional 64 in the wider geographic region;
- All of the registered (i.e. known) Aboriginal cultural material is exclusively represented by stone artefacts;
- A general pattern of artefact distribution exists, with a general background of isolated and low density occurrences across the volcanic plain with higher frequency and density associated with elevated land (particularly with stony rises) and the highest frequency and density in proximity to major water sources (Kororoit Creek former swamps, in particular) (du Cros 1989, Green & Lever 2013, Sutton & Foley 2014a, Sutton & Foley 2014b, MacManus et al. 2014, Cummins et al. 2014, Burrow & Foley 2015, Burrow et al. 2017, Barker 2007, Murphy et al. 2016, Carpenter & Squires 2021, Carpenter & Lawler 2021);
- Holocene utilisation of swamps in the Kororoit Creek corridor, potentially up to 150 m from the swamp basin, indicates that these resources were accessed from base camps along Kororoit Creek, with activities differing at these two locations (Burrow & Foley 2015, Burrow et al. 2017, Cummins et al. 2019, Carpenter & Lawler 2021);
- Of the fourteen reports summarised, eleven included survey and six included excavation;
- The majority of investigations which identified artefacts had a significantly higher proportion identified on the surface as opposed to in subsurface contexts (Tucker 2006, Murphy et al. 2016, Carpenter & Squires 2021);
- Spatial patterning of raw materials (artefactual) was observed (Cummins et al. 2014, Burrow & Foley 2015);
- A naturally thin topsoil in combination with vegetation clearance and agricultural activities has left extremely thin upper deposits, making surface rather than subsurface cultural contexts more probable;

- Where excavation has occurred, deposits generally comprise a shallow silt or clayey-silt topsoil overlying clay and basalt bedrock;
- The land within the study area has generally remained agricultural with clearing and ploughing as consistent broad impacts and with orcharding, equestrian tracks, and minor constructions associated with residences and farming, road construction and dams forming significant localised disturbance, with only minor changes, excepting the suburban creep in the geographic region surrounding the study area.
- It is likely that isolated or low density occurrences of stone artefacts will occur across the entire study area and areas of increased sensitivity (higher frequency/density stone artefact scatters) are likely to be associated with:
    - proximity to Kororoit Creek
    - stony rise landforms
    - stony rise landforms in proximity to a water source
    - margins of former or current swamps
    - proximity to Ryans Creek and Toolern Creek in the northwest.

Field Survey

A field survey was conducted over four days – 20-23 June 2022. Previously registered Aboriginal places were reinspected and the study area (where access was possible) was surveyed through a combination of focused sample survey and targeted landform analysis inspection. Three new Aboriginal places were identified (two artefact scatters and one low density artefact distribution). Additionally, two artefacts relating to a previously registered Aboriginal place (7822-4500) were identified and recorded. Observations around landform, archaeological sensitivity and disturbance were also documented.

Archaeological predictive mapping

Archaeological sensitivity predictive mapping was developed to assist in guiding planning, future development and Aboriginal heritage management within the PSP**.**

This predictive mapping was constructed to predict the most likely locations of as yet registered Aboriginal places.

An important note to this mapping is that it does not encompass predictions regarding cultural values and/or intangible heritage to the Aboriginal community. Such things are unlikely to be able to be predicted by a scientific model, such as this. These concerns can only be identified in consultation with traditional owners (in this case with appropriate knowledge holders and/or Elders from the RAP).

Recommendations

Planning recommendations to minimise impact to Aboriginal cultural heritage

The predictive and known cultural heritage mapping shown on Figure 7-6 is designed to inform planning and design for development of the study area. The archaeological sensitivity ratings provide a guide in gauging risk of Aboriginal cultural heritage occurring and to make informed decisions about development design. Generally, the risk of impacting on Aboriginal places is likely to increase with scientific sensitivity, as is the risk of impacting larger, more complex and/or more significant Aboriginal cultural heritage values. As such, areas of higher archaeological sensitivity (greatest

likelihood) are more valuable in terms of Aboriginal heritage, and also have higher levels of risk of development impacting Aboriginal heritage values.

These recommendations will protect a greater degree of areas that may have a higher potential to contain larger archaeological deposits and significant Aboriginal places, and also reduce the scope of costly and time-consuming archaeological assessment (test excavation) and mitigation measures (e.g. salvage). It is important to note that CHMPs regularly take 6-18 months to prepare and seek approval the RAP.

The following recommendations are provided for each archaeological sensitivity zone mapped in Figure 7-6:

Higher Archaeological Sensitivity (Highly Likely): These areas should be retained in their current form and, be rehabilitated to further stabilise them (such as from erosion). Works should be designed to minimise impacts and be placed largely on top of the surface, to avoid impacting below the ground surface. Future land use in the form of conservation land, passive open space or reserves is encouraged. Note: some localised impacts from essential activities such as bridge and road connections will be required

Moderate-High Sensitivity (Likely): Consideration should be made to retain these areas in their current form and rehabilitated to further stabilise them (such as from erosion). Works should minimise below ground impacts. Future land use in the form of conservation land, passive open space or reserves is encouraged.

Moderate Sensitivity (Neutral Likelihood): Development impact should be minimised. This could be through establishing passive open space (or similar).

Low-Moderate Sensitivity (Unlikely): interpretative material and or Wurundjeri language/naming should be incorporated into planning/design, in consultation with the RAP.

Low Sensitivity (Highly unlikely): interpretative material and or Wurundjeri language/naming should be incorporated into planning/design, in consultation with the RAP.

Proposed Kororoit Creek Bridge Crossings

As part of the assessment and consultation during the preparation of the ACHIA, the particular archaeological and cultural sensitivity of Kororoit Creek has been noted and discussed.

It is recommended that the VPA continue to consult with Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) about the nature and location of the likely Kororoit Creek Bridge Crossings.

Recommendations regarding CHMPs

Mandatory CHMPs

A mandatory CHMP must be prepared for properties, where they are proposed for a high impact activity and they overlap with an area of CHS (consistent with the Aboriginal Heritage Regulations 2018).

The RAP (WWCHAC) would be the evaluating body for all CHMPs prepared within the study area and must be consulted and involved in fieldwork as part of the preparation of all CHMPs.

A CHMP can be prepared to cover single or multiple properties. Preparing a CHMP that covers multiple properties is usually more cost-effective.

Additionally, CHMPs are required for specific activities and it is a requirement to include all activity elements in a CHMP (e.g. housing, site offices/compounds, road installations and upgrades, crossovers, utilities and services, utility and service connections, drainage basins and outfalls, access, storage and laydown.

It is recommended that any CHMP prepared, be initiated at least 6-18 months prior to allow sufficient time for its preparation and approval – more time should be allowed for CHMPs covering larger areas.

Voluntary CHMPs

For the properties that do not trigger mandatory CHMPs, voluntary CHMPs may be prepared to manage the risk of impact to potential Aboriginal places from any proposed subdivision and development. While not mandatory, this option would have several benefits to developers, such as providing certainty in relation to any proposed development regarding Aboriginal heritage, providing protection against strict liability offences in the AH Act, and avoid potentially long delays should Aboriginal heritage be discovered during construction (which would then likely require the preparation of a mandatory CHMP).

For properties that do not have areas of CHS, it is strongly recommended that proposed high impact activity developments prepare voluntary CHMPs where there are areas of Moderate, Moderate-High or High archaeological sensitivity within the proposed development areas (see Figure 7-6).

It is recommended that any CHMP prepared, be initiated at least 6-18 months prior to allow sufficient time for its preparation and approval – more time should be allowed for CHMPs covering larger areas.

Properties that do not contain any areas of High, Moderate-High or Moderate archaeological sensitivity, *could* prepare voluntary CHMPs as part of risk minimisation and to achieve improved cultural heritage management outcomes. Note that although unnamed or historical waterways are not afforded the same protections as named waterways under the Act, land within 200 m of unnamed waterways is still considered an area of cultural sensitivity by the Wurundjeri.

Contents

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Tables

1 Study Area

1.1 The project and the study area

This Aboriginal cultural heritage impact assessment (ACHIA) has been prepared for the Victorian Planning Authority (VPA) to inform and support planning for the Melton East Precinct Structure Plan (PSP).

The Study Area encompasses *c*. 1,005.85 hectares (ha) of land (Figure 1-1 & Figure 1-3). The Study area extends from the Western Freeway in the south to the Melton Highway and Kororoit Creek in the north and from Aintree in the east to the eastern outskirts of Melton in the west.

The primary purpose of this ACHIA is to document the known and potential Aboriginal cultural heritage values of the study area to assist in planning work and development designs within the study area. Post-contact/non-Indigenous historical heritage is not considered within this report.

The study area is located within the City of Melton local government area. The VPA has provided the following description of the PSP:

Melton East will be a largely residential precinct which will deliver around 14,000 new homes and 4,000 jobs to the Melton area. The precinct will look to integrate a strong focus on environmental sustainability and cultural heritage outcomes, which will underpin the planning for communities within the Melton East PSP, making it an exemplar of practicable sustainable precinct structure planning for greenfields Melbourne.

1.2 Proponent

The proponent of this Aboriginal Cultural Heritage Impact Assessment is the Victorian Planning Authority (VPA)

1.3 Registered Aboriginal Party (RAP)

The *Aboriginal Heritage Act 2006* establishes a system of Registered Aboriginal Parties (RAPs) that are given the responsibility of most Aboriginal heritage matters within their current registered area. Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Council (WWCHAC) is the RAP for the Study Area. Pursuant to the *Aboriginal Heritage Act 2006* (Victoria).

1.4 Authors

This report was prepared by Unearthed Heritage Australia Pty Ltd. David Mathews, Anna Light, Dr Peter Mathews and Joseph Brooke, are the authors of this report.

David Mathews[1] has over 15 years of experience in heritage management and archaeology and is qualified as both a heritage advisor and an archaeologist and is on the FP-SR list of approved Victorian heritage advisors. David's previous archaeological experience also includes archaeological investigations of a similar scope and scale as this CHMP.

Anna Light is a Heritage Advisor in accordance with heritage advisor qualification requirements under Section 189 of the *Aboriginal Heritage Act* 2006. Anna gained a Bachelor of Arts (Archaeology, Honours, first class) from La Trobe University in 2001 and has provided heritage advice and services for 18 years.

[1] Bachelor of Archaeology (Honours – first class) 2005, University of Calgary, Canada.

Peter Mathews[2] is an Emeritus Professor of archaeology and a MacArthur Fellow with extensive experience in archaeology, linguistics and ethnohistory.

Joseph Brooke[3] has over 14 years of experience in cultural heritage management and archaeology and is qualified as a heritage advisor and an archaeologist, and is on the FP-SR list of approved Victorian heritage advisors. Joseph is a full member of the Australian Association of Consulting Archaeologists Inc. Joseph's previous archaeological experience includes archaeological investigation of a similar scope and scale as this assessment.

This report focusses on Aboriginal heritage and has been prepared with consideration for requirements of the Victorian *Aboriginal Heritage Act 2006*.

[2] Bachelor of Arts, Honours - first class (1975), University of Calgary, Canada.
MPhil (1979), Yale
PhD (1988), Yale

[3] Bachelor of Archaeology (Honours – first class) 2006, La Trobe University.

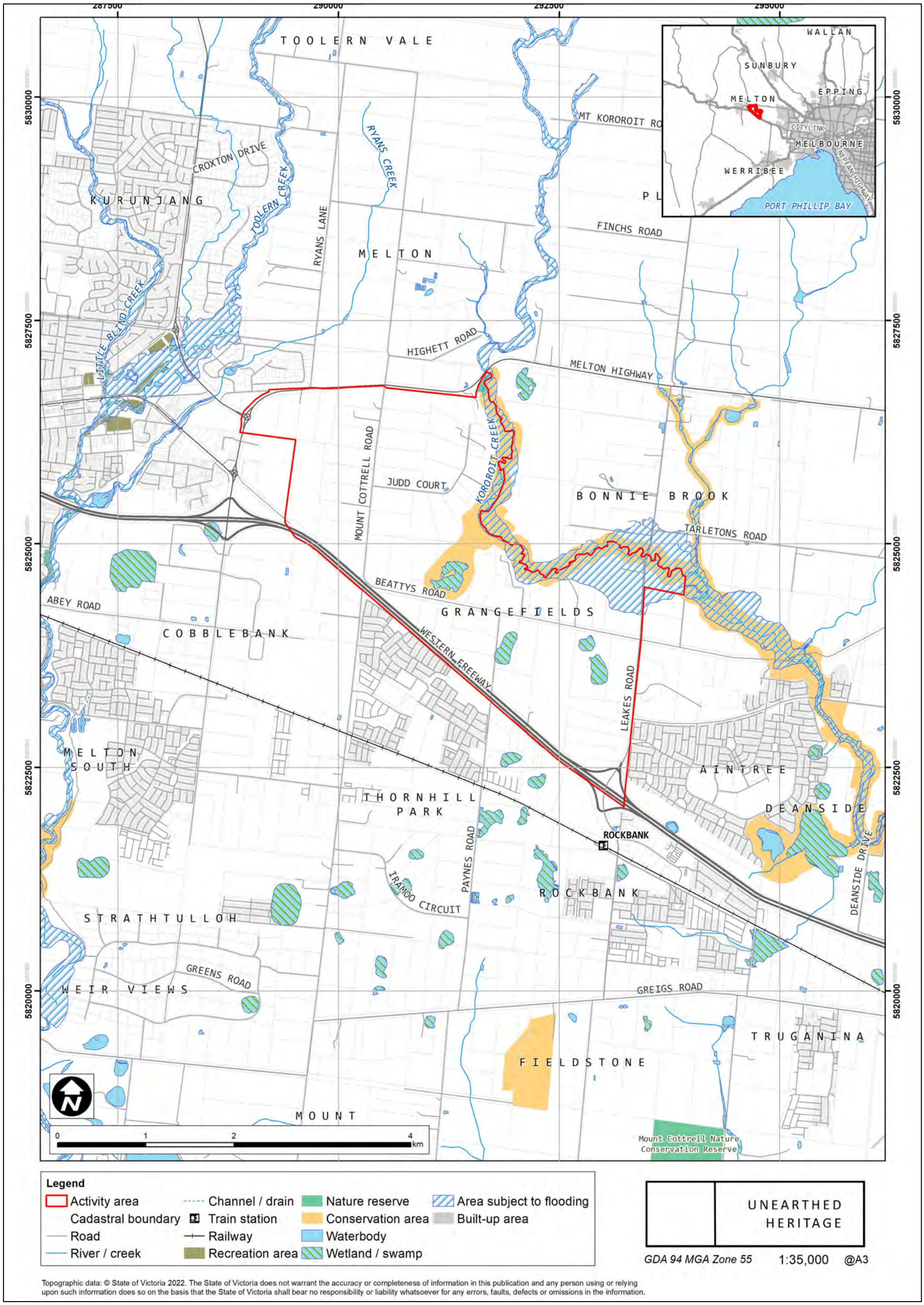


Figure 1-1 Location of the Study Area

Redacted

Figure 1-2 Location of the Study Area, showing registered Aboriginal places within 200m

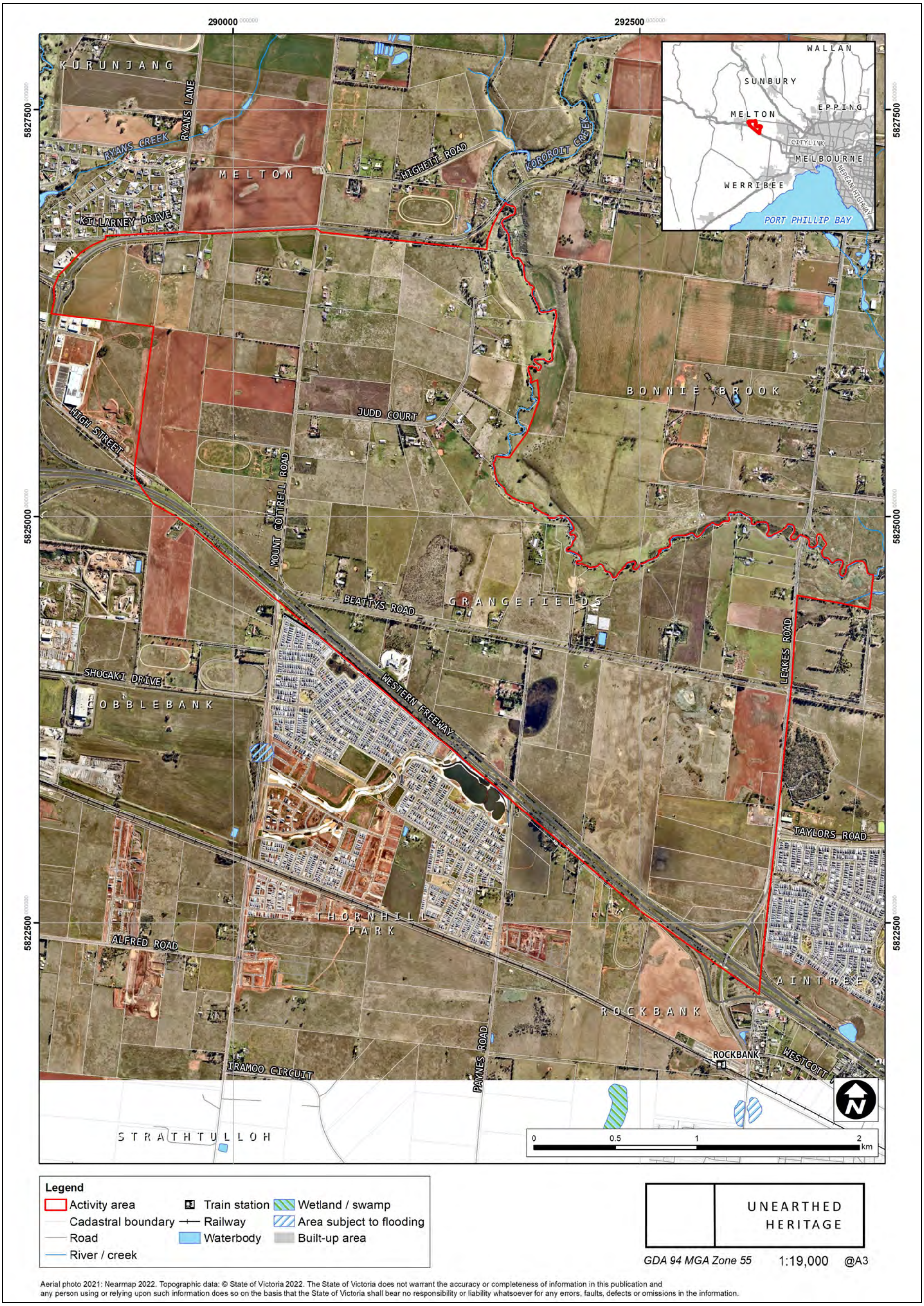


Figure 1-3 Photomap of the Study Area

2 Legislative requirements

2.1 *Aboriginal Heritage Act* 2006

The Victorian *Aboriginal Heritage Act 2006* (the AH Act) and its Regulations (the Aboriginal Heritage Regulations 2018, or AH Regulations), is the primary piece of legislation providing protection for Aboriginal cultural heritage in Victoria.

The AH Act establishes a number of processes to protect Aboriginal cultural heritage, in particular how to manage cultural heritage for proposed developments. The principal method for this management is a CHMP, which includes a cultural heritage investigation and assessment of proposed development in an activity area and provides management conditions that must be followed to manage and mitigate impact on cultural heritage within the activity area. This process includes the involvement of and consultation with Registered Aboriginal Parties (RAPs), who are also responsible for the evaluation and approval or rejection of CHMPs for their prescribed area. This consultation is undertaken through meetings and through involvement in fieldwork in the identification and assessment of Aboriginal heritage, and subsequent development of management conditions.

The requirement for the undertaking of a CHMP is triggered by the AH Regulations (Regulation 7) when an activity includes a *high impact activity* and the defined activity area includes an *area of cultural heritage sensitivity*. These are further defined below.

2.1.1 High Impact Activities

The AH Regulations define numerous high impact activities, one of which is the subdivision of land into three or more lots (Regulation 46). As such, any properties that propose subdivisions into three or more lots would be classed as a high impact activity.

2.1.2 Areas of Cultural Heritage Sensitivity

Areas of cultural heritage sensitivity (CHS) are defined in the AH Regulations by a number of different spatial parameters intended to reflect where *Aboriginal cultural heritage places* (Places) are most commonly found. The study area includes the following areas of CHS; being:

- Registered cultural heritage places and land within 50 m of these (r. 25)
- Land within 200 m of a waterway and wetland (r. 26)
- Koo Wee Rup Plain (r. 34)

The AH Regulations state that an area that has been previously subject to **significant ground disturbance** is no longer an area of CHS. Significant ground disturbance is defined in r. 5 as disturbance of the topsoil layer by machine excavation or grading, but excludes ploughing.

2.1.3 Registered Aboriginal Parties

The AH Act establishes a system of Registered Aboriginal Parties (RAPs) that are given the responsibility of most Aboriginal heritage matters within their registered area, including being responsible for the evaluation of any CHMPs in that area. The RAP for the entirety of the study area is:

- Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC).

3 Consultation

3.1 Government consultation

A Notice of Intent to Survey was submitted to the Secretary to FP-SR and the RAP (Appendix B).

3.2 Aboriginal stakeholder consultation

The Registered Aboriginal Party (RAP) for the study area is:

- Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC).

The notice of intent to carry out a survey was provided to the RAP on 7 June 2022 (see Appendix B). Field methods and management conditions were discussed with the RAP during meetings and during field investigations for standard and complex assessment.

A Cultural Values Assessment has been prepared with Wurundjeri Woi-wurrung Elders and representatives in parallel to this assessment. Additionally, amendments requested by the RAP have been incorporated through a system of drafts and responses.

The RAP was consulted as part of the assessment for the activity. Site officers representing the RAP were involved in field survey on 20-23 June 2022, as follows:

- Jordan Spencer
- Sharon Hunter
- Jason Anthony
- Gary Hansen
- Naomi Zukanovic
- Jonny Zukanovic

Summary of Meetings

Inception Meeting, Wurundjeri Office – 19 May 2022
Participants: Ron Jones (WWCHAC Elder), Allan Wandin (WWCHAC Elder), Bobby Mullins (WWCHAC Elder), Caroline Spry (Heritage Advisor, WWCHAC), Zach Powell (VPA), Rion Casey (VPA), Pam Neivandt (VPA), Suzanne Barker (VPA), Meagan Taylor (VPA)David Mathews (HA, UHA)

The meeting commenced with introductions. VPA described the nature of the project and the structure of the ACHIA. David provided environmental and archaeological background information about the study area. This included a summary of landforms and previous reports and nearby Aboriginal place registration. All parties discussed the study area and particular emphasis was placed on the sensitivity of Kororoit Creek with high density artefact scatters known to regular be present adjacent to this waterway. The approach of survey was discussed, including a mix of likely pedestrian and vehicular survey.

Post-survey Results – 23 or 26 August 2022
Participants: Ron Jones (WWCHAC Elder), Allan Wandin (WWCHAC Elder), Bobby Mullins (WWCHAC Elder), Matt Chamberlain (Heritage Unit Manager, WWCHAC) Zach Powell (VPA), Rion Casey (VPA), Alastair Jaffray (VPA), David Mathews (HA, UHA)

The meeting commenced with introductions. VPA described the nature of the project and the structure of the ACHIA. David provided a summary of the results of the recent fields survey. All parties discussed the study area and particular emphasis was placed on the sensitivity of Kororoit

Creek. The sensitivity of Kororoit Creek was discussed including questions about the likely future bridge crossings. David also shared archaeological predictive mapping that been developed for the study area.

On 8 December 2022, the RAP provided a response on the review of the draft ACHIA The draft focused on review of the predictive model. The following feedback was provided by Matt Chamberlain (WWCAC, Heritage Unit Manager):

> I've discussed the report with the Wurundjeri [Cultural] [H]eritage [U]nit Elders and they broadly accept the sensitivity model proposed by Unearthed Heritage – in that it does identify areas that they would expect to be highly sensitive for cultural heritage such as waterways, swamps and escarpments. However, they also wanted it made clear that they do have concerns about the application of a low sensitivity rating to large portions of the PSP area. They are acutely aware that significant cultural heritage places can and have been found in areas frequently deemed to be of 'low sensitivity', even in the immediate vicinity of the Melton East PSP area, and suggest that this needs to be borne in mind as the development of the PSP progresses.

4 Desktop Assessment

This section provides background information on the study area and the surrounding region. This information is presented to provide an understanding of the physical, historical, cultural and archaeological setting in which the study area is located. This information is useful in developing archaeological place prediction models. Anna Light, Peter Mathews and David Mathews undertook the background research for the desktop assessment. There were no obstacles encountered to undertaking the desktop assessment.

4.1 Aims of the Assessment

The aims of the desktop assessment were:

- To determine the level of previous Aboriginal heritage investigation of the study area and the surrounding region;
- To determine the presence of registered Aboriginal heritage places within the study area and the surrounding region;
- To determine the environmental context of the study area; and
- Review the historical and cultural setting of the study area and surrounding region.

The methods used to undertake the desktop assessment included:

- Reviewing appropriate sources, including Victorian government on-line information, and summarising relevant environmental background;
- Searching the Victorian Aboriginal Heritage Register (VAHR) and other research sources (for example, consultancy reports and academic research) for information relating to the study area and the geographic region
    - A VAHR search was undertaken
- Reviewing this information to identify and characterise Aboriginal site types likely to be present within the study area and to obtain relevant information to inform the assessment.

4.2 Environmental Context

This section provides an overview of the environmental context of the study area, with particular focus on factors that may have influenced past human behaviour and hence archaeological place formation processes and the distribution of Wurundjeri living cultural heritage places. The land-use history of the activity area is also reviewed as it assists in identifying any site formation processes that may have impacted the occurrence and/or location of Wurundjeri living cultural material and values.

Geographic Region

In order to allow for an understanding of broader environmental resources available to the Wurundjeri who utilised the study area, it is necessary to place geographical parameters on this desktop assessment to provide a meaningful context broad enough to capture regional environmental and Wurundjeri place distribution patterns, while remaining targeted so that these patterns are not missed. While the study area itself provides a large information sample given its size (1,004.85 ha), the geographic region used for this assessment covers an additional 4,852.24 ha surrounding the study area (as per Figure 4-1). This geographic region provides a view of immediately neighbouring accessible resources and variations regarding flora and fauna, geology, soils, geomorphology, the occupation by Wurundjeri people since deep time that may have led to the creation of Wurundjeri places, living cultural heritage meanings and obligations to such places and or corridors, whether

today on the terrestrial surface of this study area and the post-contact land-use history and activities that may have disturbed Wurundjeri places.

4.2.1 Geology and Geomorphology

The study area and the geographic region are situated within the Victorian Volcanic Plan (VVP) bioregion (ACHRIS 2022). The study area is located on the Western Plains geomorphological unit (GMU), on the subunit of 'Plains with poorly developed drainage and shallow regolith' (GMU 6.1.3) (Table 4-2 & Figure 4-1). The geographic region, while dominated by this same GMU, also encompasses very small areas of other Western Plains subunits (Table 4-1 & Figure 4-1).

GMU 6.1.3 ('Plains with poorly developed drainage and shallow regolith') is described as (VRO 2022a):

> "*The plains developed on the older Newer Volcanic lavas that formed in the Late Pliocene and during the Pleistocene, from about two million year ago and up to one million years ago, are generally characterised by thin regolith development and poorly developed drainage. In these landscapes, flow boundaries are obvious, and corestones ('floaters') are often seen at the surface. Shallow drainage lines have developed, often along the boundaries of lava flows. Discontinuous drainage lines may end in ephemeral wetlands and swamps. Examples of this landform occur in the region from Warrambine to Armytage, with the best examples immediately north of the Wingeel Swamp. Associated soil types are sodic and non-sodic texture contrast (moderately deep to deep) soils (Sodosols) and some gradational (shallow to moderately deep) soils (Dermosols), and gilgai (mound and rise ground surfaces) due to swelling and shrinking clay soils can lead to road and building foundation problems*."

GMU 6.2.5 ('Terraces and floodplains, and coastal plains') is located on sedimentary plains associated with the Moolap Sunkland (a shallow seaway during the late interglacial, 125 kya, and during the Holocene maximum, 6 kya), comprising alluvium, alluvial terraces and floodplains (VRO 2022b). This GMU is located proximal to Toolern Creek and Ryans Creek at the northwest of the Geographic Region.

In terms of geology, both the Geographic Region and the Study Area are dominated by the Newer Volcanic Group basalt flows (Neo), dotted with numerous swamp and lake deposits (Qm1) and with linear stretches of colluvium (Qc1) associated with Kororoit Creek (Figure 4-2). The Geographic Region incorporates the colluvium (Qa1) and Darley Gravel (Nxr) associated with Ryans Creek and a very small amount of colluviam (Qc1) associated with pockets along Kororoit Creek and its tributaries in the north.

The Study Area slopes down from the higher elevations in the north (c. 160 m asl) to the lower and flatter plains in the south (c. 110 m asl) (Figure 4-3 shows the geographic region and study area overlain on a digital elevation model or DEM). Landforms within the geographic region can be divided into several useful analytical categories:

- Foothills;
- Flat to gently undulating volcanic plain;
- Stony rises;
- Swamps (former and ephemeral);
- Escarpment of Kororoit Creek;
- Creeks and tributaries, and
- Floodplain.

Table 4-1: Geomorphological units within the Geographic Region

Geomorphological Units (Tier 3)	GMU Tier 1 Description	GMU Tier 2 Description	GMU Tier 3 Description	Lithology	Area (ha)	Area (%)
6.1.1	Western Plains (WP)	Volcanic plains	Eruption points: maars, scoria cones and lava shields, including associated ash and scoria deposits (Lake Purrumbete, Mt. Elephant, Mt. Cottrell)	Volcanics	2.10	0.04%
6.1.2	Western Plains (WP)	Volcanic plains	Stony rises (Mt. Eccles, Pomborneit, Mt. Rouse)	Basalt	56.03	0.96%
6.1.3	Western Plains (WP)	Volcanic plains	Plains with poorly developed drainage and shallow regolith (Wingeel)	Basalt	5,397.40	92.15%
6.2.5	Western Plains (WP)	Sedimentary plains (Plains on unconsolidated (sedimentary) deposits	Terraces and floodplains, and coastal plains (Barwon River, Moolap sunklands, Cape Otway)	Alluvium	401.56	6.86%
Total					**5,857.09**	**100.00%**

Table 4-2: Geomorphological units within the Study Area

Geomorphological Units (Tier 3)	GMU Tier 1 Description	GMU Tier 2 Description	GMU Tier 3 Description	Lithology	Area (ha)	Area (%)
6.1.3	Western Plains (WP)	Volcanic plains	Plains with poorly developed drainage and shallow regolith (Wingeel)	Basalt	1,004.85	100.00%
Total					**1,004.85**	**100.00%**

Table 4-3: Geological units within the Geographic Region

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
Neo	Newer Volcanic Group - basalt flows (Neo): generic	Olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiite, mugearite, minor scoria and ash, fluvial sediments: tholeiitic to alkaline; includes sheet flows and valley flows and intercalated gravel, sand, clay	alkali basalt (major [proportion]); tholeiitic basalt (major [proportion]); tuff (minor [proportion]); scoria (minor [proportion]); alluvium (minor [proportion])	Miocene to Holocene (lava flow [process] - eruption centre [environment]; water [process] - fluvial [environment])	5,336.50	91.11%

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
Nxr	Darley Gravel (Nxr): generic	Gravel, sand, silt: gravel red to pale colours; rounding and sorting moderate to good; moderately consolidated; massive to trough cross-bedded; gravel clasts of vein quartz, sandstone, basalt, ironstone in proportions that reflect the local source	gravel [material] (significant); sand (significant); silt [material] (significant)	Neogene to Pleistocene (channelled stream flow - fluvial [environment])	138.05	2.36%
Qa1	Alluvium (Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	silt [material] (significant); sand (significant); gravel [material] (significant)	Pleistocene to Holocene (channelled stream flow-fluvial [environment])	301.99	5.16%
Qc1	Colluvium (Qc1): generic	Diamictite, gravel, sand, silt, clay, rubble: sorting variable, usually poor; generally poorly rounded; clasts locally sourced; includes channel deposits with better rounding and sorting	diamictite (dominant); rubble (significant); clay [lithology] (significant); silt [material] (significant); sand (significant); gravel [material] (significant)	Pliocene to Holocene (sheet flow - colluvial)	20.28	0.35%
Qm1	Swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	mud (major [proportion]); silt [material] (significant); clay [lithology] (significant); peat (minor [proportion]); dolostone (rare)	Pleistocene to Holocene (detrital deposition still water - swamp/marsh/bog)	60.26	1.03%
Total					**5,857.09**	**100.00%**

Table 4-4: Geological units within the Study Area

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
Neo	Newer Volcanic Group - basalt flows (Neo): generic	Olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiite, mugearite, minor scoria and ash, fluvial sediments: tholeiitic to alkaline; includes sheet flows and valley flows and intercalated gravel, sand, clay	alkali basalt (major [proportion]); tholeiitic basalt (major [proportion]); tuff (minor [proportion]); scoria (minor [proportion]); alluvium (minor [proportion])	Miocene to Holocene (lava flow [process] - eruption centre [environment]; water [process] - fluvial [environment])	908.61	90.42%

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
Qa1	Alluvium (Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	silt [material] (significant); sand (significant); gravel [material] (significant)	Pleistocene to Holocene (channelled stream flow-fluvial [environment])	78.80	7.84%
Qm1	Swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	mud (major [proportion]); silt [material] (significant); clay [lithology] (significant); peat (minor [proportion]); dolostone (rare)	Pleistocene to Holocene (detrital deposition still water - swamp/marsh/bog)	17.44	1.74%
Total					**1,004.85**	**100.00%**

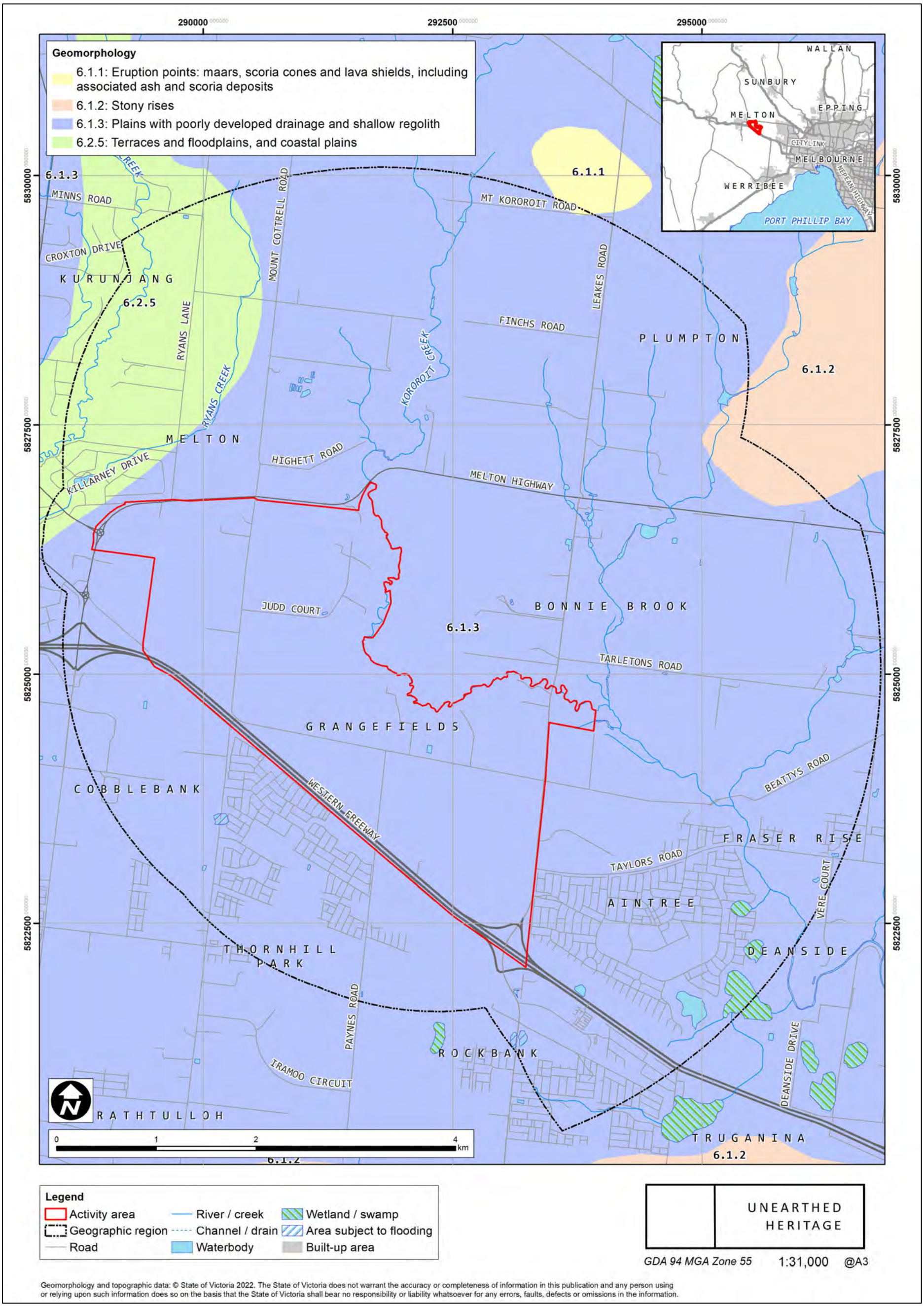
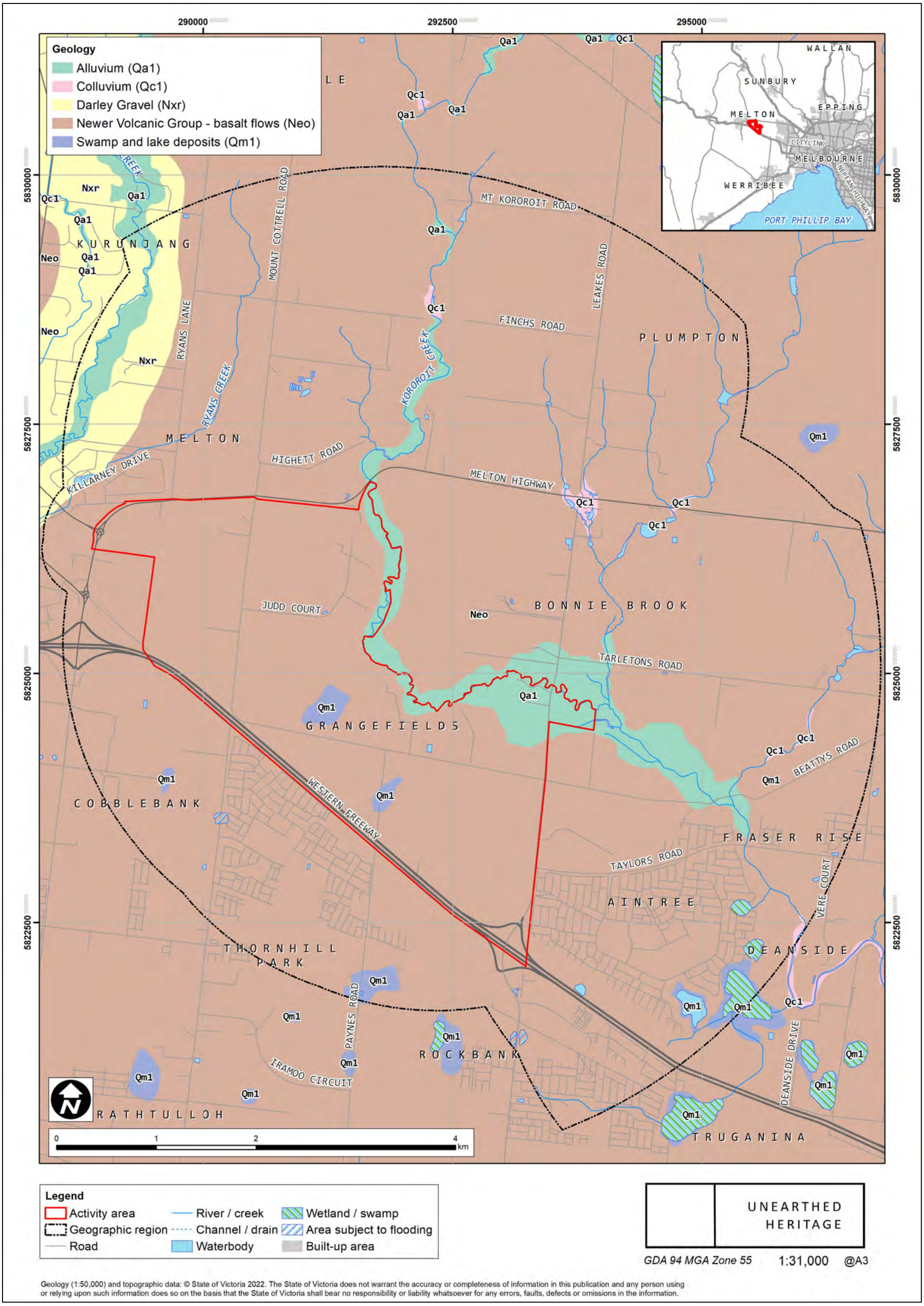


Figure 4-1 Geomorphology of the Study Area and geographic region



Geology (1:50,000) and topographic data: © State of Victoria 2022. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Figure 4-2 Geology of the Study Area and geographic region

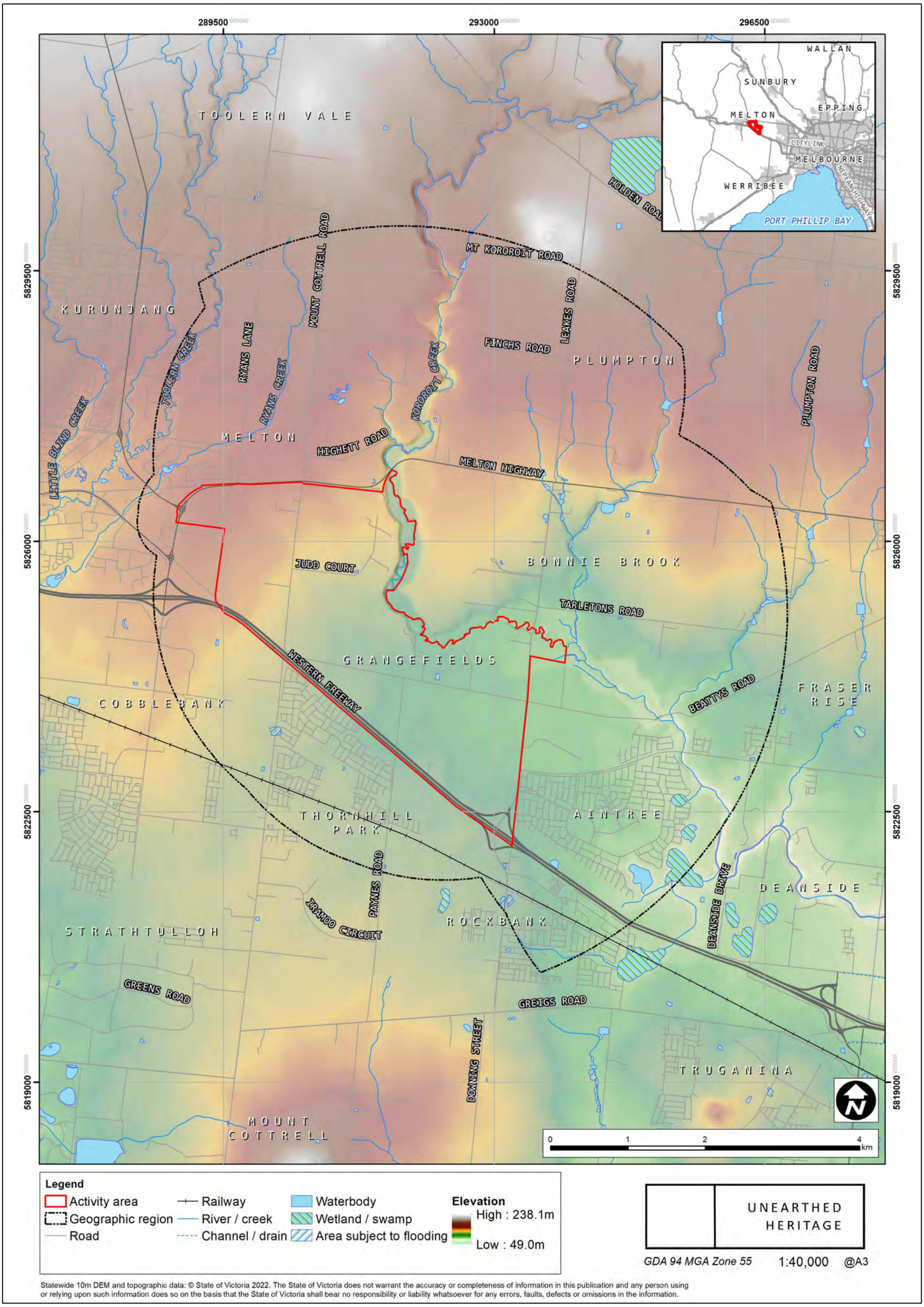


Figure 4-3 Digital Elevation Model (DEM) of the Study Area

4.2.2 Flora and Fauna

Prior to European settlement and land-use, both the geographic region and the Study Area would have been dominated by Plains Grasslands and Chenopod Shrublands (Ecological Vegetation Class (EVC) 132), with small areas of Wetlands (EVC 125) dotted throughout, Riverine Grassy Woodlands or Forests (EVC 68) and Plains Woodland/Plains Grassland Mosaic (EVC 693) associated with creek corridors (Figure 4-4, Table 4-5, Table 4-6).

Plains Grasslands and Chenopod Shrublands (EVC 132) is described as primarily treeless and dominated by grass and herb species and associated with cracking basalt soils prone to waterlogging (DELWP 2022).

Wetland environments would have been associated with treeless shrubland (EVC 125).

The broad range of vegetation in the region historically provided Wurundjeri people in the area access to a range of plant and animal food resources, including swamp wallabies, eastern grey kangaroos, bandicoots, quolls, echidnas, amphibians and reptiles which would have populated the area (BWVP 2022). Waterways and swamp areas would have provided further food sources, such as eels, fish, birds and eggs. All of these have been noted by early explorers and settlers travelling or settling in the region as well as the collection of plant foods such as Murnongs, grasses and seeds.

The vegetation itself would have also provided many resources to Wurundjeri people, such as wood and bark for tools, plant material for medicinal purposes, and fibres for netting and bags.

Table 4-5: EVC units within the geographic region (DELWP 2022)

EVC Code	Group Name	EVC Name	Sub-group	Area (ha)	Area (%)
0068	Riverine Grassy Woodlands or Forests	Creekline Grassy Woodland	Creekline and/or swampy	204.73	3.50%
0104	Wetlands	Lignum Swamp	Freshwater	17.31	0.30%
0125	Wetlands	Plains Grassy Wetland	Freshwater	43.72	0.75%
0132	Plains Grasslands and Chenopod Shrublands	Plains Grassland	Clay soils	5,453.58	93.11%
0693	Plains Woodlands or Forests	Plains Woodland/Plains Grassland Mosaic	Poorly-draining	137.75	2.35%
Total				**5,857.09**	**100.00%**

Table 4-6: EVC units within the Study Area (DELWP 2022)

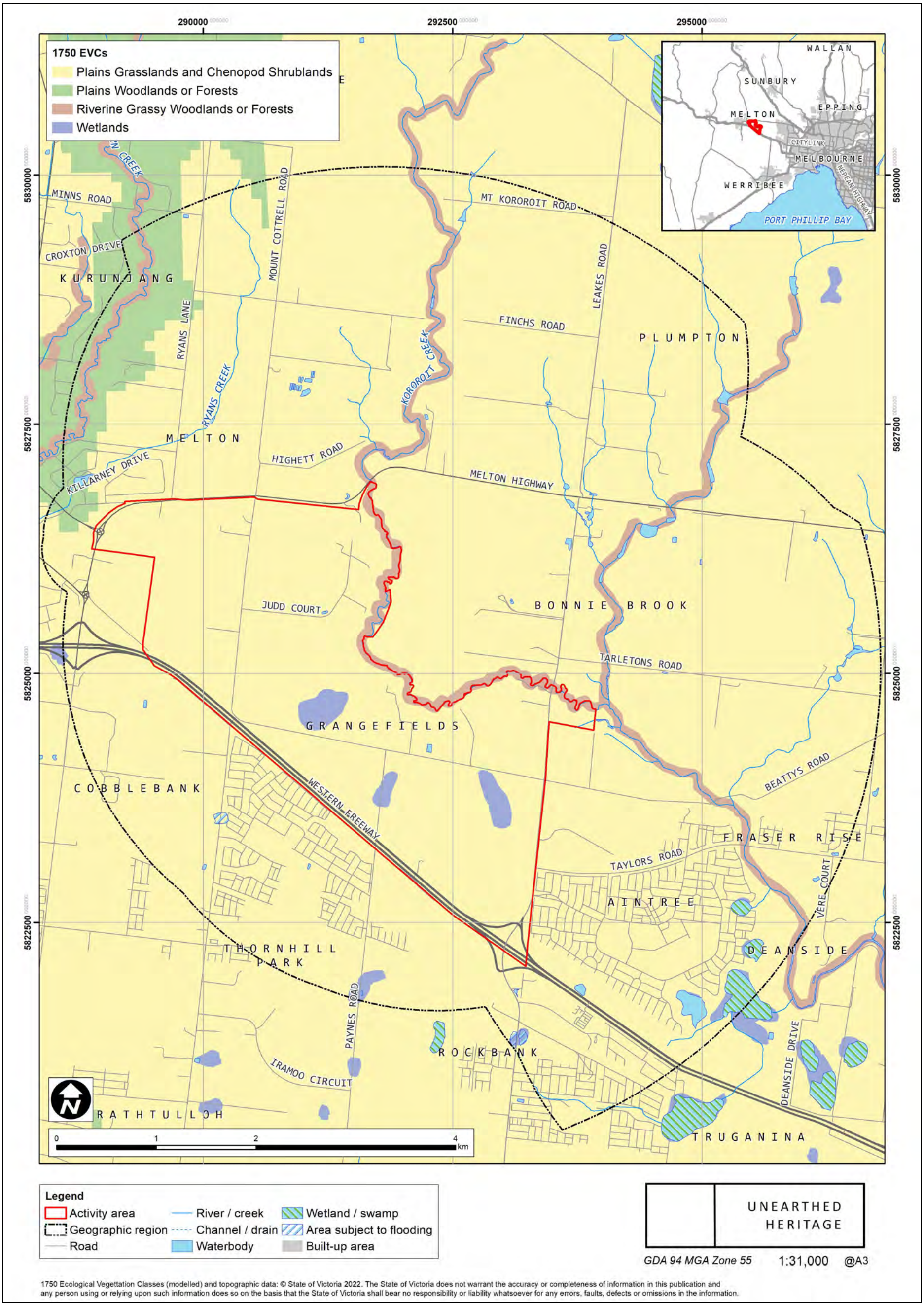
EVC Code	Group Name	EVC Name	Sub-group	Area (ha)	Area (%)
0068	Riverine Grassy Woodlands or Forests	Creekline Grassy Woodland	Creekline and/or swampy	31.15	3.10%
0125	Wetlands	Plains Grassy Wetland	Freshwater	30.63	3.05%
0132	Plains Grasslands and Chenopod Shrublands	Plains Grassland	Clay soils	943.06	93.85%
Total				**1,004.85**	**100.00%**

4.2.3 Climate

In the study region, summer average maximum and minimum temperatures are *c*. 26.6° and 12.1° Celsius, respectively, while in winter the average maximum and minimum are 14.5° and 5.5° Celsius, respectively (BOM 2022). The average annual rainfall is *c*.537.5 mm (BOM 2022).

While these climatic conditions would have placed no strictures on Wurundjeri occupation, they would have clearly led to differential seasonal occupation across different parts of the landscape. Additionally, during the long period of Wurundjeri and Kulin Nation residency of the broader region (at least *c*.37,000 years BP), climatic conditions have varied significantly, including colder and drier conditions that would have seen the drying up of Nerm / Port Phillip Bay, and warmer and wetter periods that would have provided different challenges and opportunities for occupation (Mulvaney and Kamminga 1999).

The current coastline of Nerm / Port Phillip Bay *c*. 6 kya after the sea settled to its current level (rising above current level then falling 1-2 m to contemporary level). During the Pleistocene ice age, low sea levels allowed a land mass to extent across what is now Nerm / Port Phillip Bay. Between *c*.18-6 kya as the climate warmed, this land mass was submerged and the current bay formed (Bird 2011: 4).



1750 Ecological Vegetation Classes (modelled) and topographic data: © State of Victoria 2022. The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Figure 4-4 Modelled 1750s EVCs of the study area and the geographic region

4.3 Cultural Background

4.3.1 Introduction

Currently, information about Aboriginal occupation of the study region is predominantly derived from observations made by Europeans in the early years of contact, once Aboriginal life had already been disrupted. Two important factors need to be taken into account when considering this. Firstly, Aboriginal culture is an oral tradition with only certain members of groups holding particular stories and information and with the arrival of European explorers and settlers, disease and displacement meant disruption to this system with groups having to leave country or information holders succumbing to disease or European weapons. Secondly, in order to trust in the ethnographic records, those that recorded the information must be relied upon to have been told, and transcribed, correct information, to have no bias stemming from their own educations or colonial desires or from negative interactions – to be wholly neutral. Boucher (in Clark & Cahir 2016: 225) describes the foggy lens through which we must now view ethnographic records as being because '*the frontier was always an exercise in narrating and imagining colonisation rather than a reflection of its material progress…the stories explorers told about their frontier crossings could not help but reverberate with these politics*' with narratives around exploration used to support colonialsim '*at the expense of other forms of knowledge*'. Further, Pascoe (2018: 4-5) refers to imperialism as more than an 'economic and military exercise' but as an ideological act that requires otherness and reformation to colonial will. This is how, Pascoe (2018: 4) argues, European assumptions selectively filtered the information to create the required narrative that perpetuates today.

This does not mean that information from these sources should be disregarded, just treated with caution and the knowledge of all that came before the recording of the information, both for the informant and the recorder.

It is difficult to estimate the population size of Aboriginal Australia at the time of European invasion, but most recent estimates range from about 500,000 to 1,000,000. By 1901 there were only about 650 Aboriginal people in all of Victoria (Presland 2010: 90). Only now, almost 200 years after the first European settlement, is the Aboriginal population of Victoria getting back to its pre-Invasion level. The catastrophic reduction of Indigenous populations in the face of European colonizers has been shared all over the world. It is due to the multiple effects of disease, warfare and massacres, loss of habitat and culture, and feeling of spiritual hopelessness.

4.3.2 Ethnohistorical Background

The study region is located within the traditional lands of the *Woi-wurrung* (also called *Wurundjeri*). (Clark 1990: 365). The *Woi-wurrung* were part of the East Kulin language group (Clark 1990: 363). The East Kulin is made up of four language groups: *Woi-wurrung, Bun wurrung, Daung wurrung* (*Taungurong*) and *Ngaura-illam wurrung* (*Djadjawurung*) (the *Wada wurrung* to the west making up the fifth language group of the Kulin nation). The East Kulin share a closely related language and other kinship systems such as marriage, religion and trade (Eidelson 2014: 12). Marriage was always on an 'exogamous' basis (i.e. between members of different moiety clans) (Presland 2010: 33). All of the *Woi wurring* clans had their own 'head man' (*Ngurungaeta* in Woi-wurrung language, Barwick 1984: 107) who had authority over the group and acted as representative of the group when in contact with other clans (Presland 1997: 52, 2010: 18). The *Woi-wurrung* are a patrilineal language group with local groups, or clans, associated with either the *Bunjil* (wedge-tailed eagle) or *Waa* (crow) moiety system (Clark 1990: 361, 379). It has been suggested that family groups, or 'bands', based on marriage and offspring within a clan, foraged and travelled together and communication

between these groups included other clans of the *Woi-wurrung* (and other East Kulin groups such as the *Bun wurrung*) moving into/through the area (Presland 1997: 6, 2010: 340, Howitt 2001: 72, Cahir et al. 2018). This is discussed by Barwick (1984: 106) as relating to connections remaining with the mother's birth clan.

Clark (1990: 365) lists seven *Woi-wurrung* clans with the closest to the study region being the *Tallin willam*, who were connected to Toolern Creek, the *Kurung jang balug* associated with Werribee River and Mt. Cottrell, and the *Marin balug*, with connections to Kororoit Creek. Howitt (2001: 70) lists five 'tribes' of the *Woëworung* language group, although notes it is a 'defective' list but provides a general idea (note that in this case the meaning of 'tribe' equates to the 'clan' reference -utilised in this report). Of Howitt's five groups, the *Kurung-jang-balluk* are the most relevant to the study region with 'Kurung-jang' suggested by (Howitt 2001: 70) to mean 'red ground'. Barwick (1984: 120-124) lists five clans associated with the *Woi-wurrung* language group, including: *Baluk-willam*, *Gunung-willam-balluk*, *Kurung-jang-balluk*, *Marin-balluk* and *Wurundjeri-balluk / Wurunjeri-willam* (these last two both listed as the fifth clan, being south and north of the Yarra River, respectively). The *Kurung-jang-balluk* were noted as associated with the study area region as the *Marin-balluk* area was suggested to extend between Kororoit Creek and Maribyrnong River, according to Barwick's mapping (Barwick 1984: 118, http://vaclang.org.au/languages/woiwurrung.html).

Select *Woi-wurrung* vocabulary and corresponding English translations are included in Appendix C.

4.3.2.1 Social Organization

The speakers of the four Eastern Kulin Nation language groups of central and northern Victoria formed the core of what has been called the Kulin 'nation' or 'confederacy': Woi-wurrung (today known as the Wurundjeri / Woi-wurrung), Boon wurrung / Bunurong), Daung wurrung (Taungurung), and Ngurai-illam wurrung. Two other groups were considered 'honorary' members of the Kulin 'nation': Wadawurrung and Djadja wurrung (Dja Dja Wurrung) (Barwick 1984: 105; Presland 1980).

The clan was the most important social group in Aboriginal society. It was the clan that cared for and was responsible for the lands, seas, skies and waters under their remit, and it was the clan with which the individual identified himself or herself (Presland 2010: 18). But all the members of a clan did not permanently live together. Smaller groups, comprising extended families made up the basic economic group. These are generally called 'bands' and would typically number 15-20 individuals – usually 1-2 families: men, their wives, sons, unmarried daughters, and a shifting population of other relatives (Presland 2010: 18). The band is the group that is most relevant to archaeological investigations, since it is most commonly their activities (hunting, fishing, gathering, camping) that are represented in the rather ephemeral archaeological record. While band membership could be rather fluid, clan membership was established at birth. Both one's moiety and one's clan were inherited from his or her father; this inheritance was retained for life (Barwick 1984: 106). Once born, a clan member identified deeply and spiritually with his or her land. The clan members' connection to their land defined their very existence: it was theirs since the Dreaming: "Wherever one is born, that is his or her country" (William Thomas, cited in Cannon 1983: 624). And it was the land, tragically, that was taken away from Woi-wurrung People: their suffering on this account cannot be overemphasized.

All the Kulin Nations had a patrilineal descent system (rare among Australian Aboriginal people) and an exogamous moiety system. Each clan belonged to either the *Bundjil* (or *Bunjil*, 'Eaglehawk', or 'Wedge-tailed Eagle') (Aquila audax) or *Waa* ('Crow') (*Corvus coronoides*) moiety; marriage had to be with someone from the other moiety. Eastern Kulin Nation men sought "marriage partners from within the confederacy but outside of their own clan (Presland 2010) and marriages would often be to a member of a distant clan (such from different ecological regions), which would expand the

possibilities for resource exploitation. Such marriages could cement alliances between far-flung groups of the confederacy (and beyond), but they could also cause tensions and enmities.

Clark (1990: 382-384) lists the following moiety associations with the Wurundjeri clans close to the study region: *Kurung jang balug* and *Marin balug* with Waa, and *Tallin willam* with Bunjil.

The periodic gatherings between various language groups often occurred and involved a variety of purposes, such as: renewing family ties, trade, dance and song and story-telling, and initiation and ritual and ceremony, as well as the settling of disputes through fighting. Corroborees were a feature of these meetings, which occurred in many different places across Country. There was a formality to the meetings: different groups would camp in separate spaces determined by tradition near the corroboree ground. Some of the Kulin Nation confederacy corroboree grounds, for example, were in what is now inner Melbourne: near the present-day Botanical Gardens, Parliament Hill, and Royal Park. For these the Wurundjeri / Woi-wurrung would camp in places where the Melbourne Cricket Ground and Punt Road Oval are now. The Boon Wurrung / Bunerung had campsites in what are now the Botanical Gardens, and the Daung wurrung camped in today's Clifton Hill. The Wadawurrung camped in what was first the Old Melbourne Cemetery, later paved over as a car park for the Queen Victoria Market (Presland 1980). Other corroborees, such as ones described by Buckley, could involve different clans from within the same tribe or language group.

4.3.2.2 Belief systems

As the complex, and often secret, mythologies and belief structures associated with *Wurundjeri* culture are often very localised (i.e. spirit ancestors are associated with particular landscape features) it is difficult without the generationally-purveyed traditional knowledge to identify this information. Traditions and stories were passed on via myth and song (Cahir et al. 2018: 2). Particularly with the modification of the landscape by European land-use and the resultant removal of these markers. In relation to the evolution of belief systems due to this European impact on traditional life, Cahir et al. (2018: 33) explains: "*Much of Creation folklore formerly known by Aboriginal people has been lost or significantly altered since European settlement in the early 19th Century, but traditions concerning spirit beings have remained because they are part of knowledge that is not only still relevant but is still being augmented*." These spirit ancestors were simultaneously seen as landscape features (trees, hills, mountains and animals) and as stars and planets with the landscape and stories intertwined to form a narrative map both physical and historical. On a broad-scale, creation stories can indicate a link to historical occurrences, such as stories surrounding the cause of the filling of Port Phillip Bay (Massola 1968: 58).

The skyworld and the earth landscape were reflections of each other (replications) with points of connection, easier to cross during the creation period and with only specific people able to cross later. A widespread story involved the sky and the belief that it is supported on four poles (Howitt 1884: 186; Brumm 2010). If the poles were to collapse, the skies would crash down and their water would drown everyone. Howitt (2001 [1904]: 427) reported that the great Woi-wurrung elder Barak told him that before the Invasion messages were sent far and wide that the poles were becoming rotten, and that axes were urgently needed to cut new ones.

Bundjil and Waa were the two main ancestral spirit figures of the Woi-wurrung People and other Kulin Nation People, who honour them by dividing their clans into either Bundjil or Waa moieties:

> *Bunjil* taught the Kulin the arts of life, and one legend states that in that time the Kulin married without any regard for kinship. Two medicine-men (*Wirrarap*) went up to him in the *Tharangalk-bek*, and he said in reply to their request that the Kulin should divide

themselves into two parts—"*Bunjil* on this side and *Waang* [*Waa*] on that side, and *Bunjil* should marry *Waang*, and *Waang* marry *Bunjil*" (Howitt 2001 [1904]: 491).

4.3.2.3 Water

Water played a major role in the practical and the traditional lives of Aboriginal people. As Cahir et al. (2018: 95, 96) state, at a basic level – access to an adequate amount of potable water is a "*fundamental human physiological imperative*". In sedentary contemporary society we have organised to have it on tap. Aboriginal people travelled when water was too great (flooding) or too little (dry creeks). Aboriginal myth narratives held maps to potable water locations (creeks, rivers, water holes, claypans, etc.) and knowledge (biocultural knowledge) regarding which birds and insects were 'waterfinders' as well as which vegetation provided water. Larger, more significant waterways and water sources often held totemic significance and were the localities for ceremony, trade and formed country boundaries. In the case of the study area, Kororroit Creek has been suggested to represent a boundary between the *Kurung-jang balluk* and the *Marin Balluk*.

4.3.3 The Aboriginal Protectorate, Missions and Reserves

The Port Phillip District came about in large part due to lobbying from the Aborigines Protection Society that had formed in 1837 in London, and in June of the same year a House of Commons Select Committee recommended that a Protectorate be established. George Augustus Robinson, who had gained a certain notoriety for his role in the 'conciliation' of the Van Diemen's Land Aborigines between 1829 and 1838, was appointed Chief Protector. The assistant protectors were William Thomas, Charles Wightman Sievwright, Edward Stone Parker, and James Dredge. Parker and Dredge were Methodist preachers, Thomas a Methodist educator, and Sievwright a British Army Officer. In March 1839, Robinson allocated regions of the Port Phillip District to his assistants: Thomas was given the Central Protectorate District of Western Port, Sievwright the Western District, Parker was given the Loddon and Northwest District, and Dredge the Goulburn District.

In many ways the Protectorate was doomed from the start: the Protectors were unable to offer much assistance to the Aboriginal inhabitants, neither with supplies nor protection from squatters. The squatters in turn considered the Protectorate an obstacle to the running of their enterprises, and most of the squatters actively opposed and undermined the Protectors, whose work was increasingly difficult. The Aboriginal population continued to decline rapidly, and reserves and missions became more prominent.

In 1849 the Protectorate was abolished, and a period of government inaction and neglect followed. This situation was exacerbated when gold was found throughout much of Victoria, which marginalized the Aboriginal people even more – although they were largely 'marginalized' in settlements and in the goldfields. Their traditional hunting and plant harvesting estates had been taken over by sheep, and they survived as best they could. In 1860 the 'Central Board Appointed to Watch Over the Interests of Aborigines' was established.

By the 1860s were being encouraged to move to Coranderrk, on Woi-wurrung Country near Healesville. In 1863 Simon Wonga (son of Billibellary) and William Barak (Woi-wurrung Elders) had led about 40 Aboriginal people – Woi-wurrung, Boon wurrung and Daung wurrung – to a traditional camping ground place near Healesville, where they camped and petitioned for ownership of the land. In June 1863 land totalling 9.6 km² was granted to them as a temporary reserve; the settlement was called 'Coranderrk'. At first the settlement survived and even flourished, and by 1875 Coranderrk was virtually self-sufficient. It's produce won first prize at the Melbourne International Exhibition in October 1880.

Meanwhile, in 1869, the Aboriginal Protection Act 1869 was passed in the Victorian Parliament. It gave the Governor of Victoria power to dictate where Aboriginal people could reside, and what activities they could undertake on and off reserves; it also gave the authority to take charge of Aboriginal children. The Act also established the Central Board for the Protection of Aborigines, which lasted from 1869 to 1900. From what we have already seen in how Colonial governments (and later, Australian governments) have treated Aboriginal people under the guise of 'protection', it should be no surprise that from 1874 the Board began to undermine the settlement at Coranderrk. By this time white neighbours were beginning to eye the settlement's land, and for the next dozen years the Coranderrk residents were continually fighting to keep their reserve (Barwick 1998: 1). They sent deputations to the Colonial government, while the government for its part held a Royal Commission (1877) and a Parliamentary Inquiry (1881) on the Aboriginal 'problem'. Bravely, the Aboriginal people of Coranderrk hung on.

In 1886 another Act was passed – the Aborigines' Protection Act 1886 – as an amendment to the 1869 Act. Under this Act, 'half-castes' were forbidden to live on reserves. All 'half-castes under the age of 35' were ordered to leave Coranderrk – presumably it was thought that with most of the younger residents gone, the rest would soon follow. About 60 Coranderrk 'half-castes' were evicted, and the settlement never really recovered. Only 15 able-bodied men were left. But still the surviving Aboriginal people of Coranderrk resisted: William Barak, who had already led two protest marches to Parliament House, and others petitioned the government:

> "Could we get our freedom to go away Shearing and Harvesting and to come home when we wish and also to go for the good of our Health when we need it ... We should be free like the White Population there is only few Blacks now rem[a]ining in Victoria, we are all dying away now and we Blacks of Aboriginal Blood, wish to have now freedom for all our life time ... Why does the Board seek in these latter days more stronger authority over us Aborigines than it has yet been?"

In 1893 almost half the remaining Coranderrk land was reclaimed by the colonial government, and the reserve was formally closed in 1924. Most of the surviving residents were forcibly moved to Lake Tyers in Gippsland, in what used to be Gunai Kurnai Country. A few elderly residents refused to leave; the last Aboriginal woman at Coranderrk, Elizabeth Davis, died at the age of 104 in 1957. In a final act of spite by the Victorian government, permission was refused for her to be buried alongside her husband and siblings at Coranderrk.

Today the Woi-wurrung People are represented by the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) serving on behalf of all Woi-wurrung and represents their interests.

4.3.4 Post-Contact Land Use History

As early as 1824 reports on the attractiveness of the plains west of Melbourne for grazing were being relayed by Hume and Hovell. They were followed by John Batman who ‘claimed’ over 600,000 acres after which he and John Wedge, divided the land into fourteen lots for a ‘lucky draw’ for ownership by members of the Port Phillip Association (Figure 4-5). In an 1835 map of the Port Phillip District, Wedge described the land in the study region as ‘extensive open grassy plains’ (Figure 4-6).

In 1836 the ‘purchase’ of the entire area was deemed to be illegal and this led to an influx of sheep graziers for the establishment of large squatting runs, making use of the good pasture reported on by the initial scouts from the Port Phillip Association (Figure 4-9). The study area was located across three squatting runs, with the east within Yuille’s large holding, the central section appears to possibly be associated with the large Exford Estate and the eastern section in Pyke’s Station (Spreadborough &

Anderson 1983: 262). An early map (Figure 4-8) indicates that the study region was partly within the Rockbank Station held by Yuille, purchased in 1853 as part of a 640 acre estate (Starr 1985: 15). After 1850 freehold titles became available via public auction and the district became settled. Place names in the region are derived from both European people of note (e.g. named after explorers and settlers) or European interpretations of Aboriginal language, with 'Kororoit' suggested to come from an interpretation of Woi-wurrung (Vicnames 2022).

Early maps of the wider region show both mid-19th Century landforms as well as early town plans (Figure 4-10, Figure 4-11, Figure 4-12) with swamps present and subdivisions detailed. Former swamps east of the Township of Melton (including the current study area), now dried up, once nearly 2 m deep and home to numerous water birds (Pollitt 1961: 27). In 1852 one large allotment was subdivided to form a village site, which became Melton (Starr 1985: 13). Nearly a decade earlier the Ballarat Road (now the Western Highway) had been surveyed, with very little change to its alignment in the time since (Starr 1985: 14). An 1837 surveyor's map (Figure 4-7) shows the alignment of the Ballarat Road and also a less formal track which extended to Ballarat, passing by Pyke's Station, and was the only access for numerous years (Pollitt 1961: 18). This old track extended through the current study area.

The town of Melton had grown rapidly to include numerous hotels, churches a school and shops, to form an epicentre for the pastoral and agricultural industries in the region. However, opposition to the large holdings in the region due to the limitations of township development saw the further subdivision of these estates, and in 1865 crown lands were opened for public selection (Pollitt 1961: 21).

After the initial pastoral period, mainly associated with sheep grazing, early industry was associated with grain cultivation and then, in the mid-1970s the focus shifted to grazing and dairying (Bacchus Marsh Express 1876: 1).

Gold discovery in Ballarat was a boon to the township, with travellers making use of the hotels and local suppliers providing for the gold fields (Pollitt 1961: 26). The loss of population to the goldfields, however, as well as impacts of bushfire and cattle diseases, saw the region suffer (Pollitt 1961: 27).

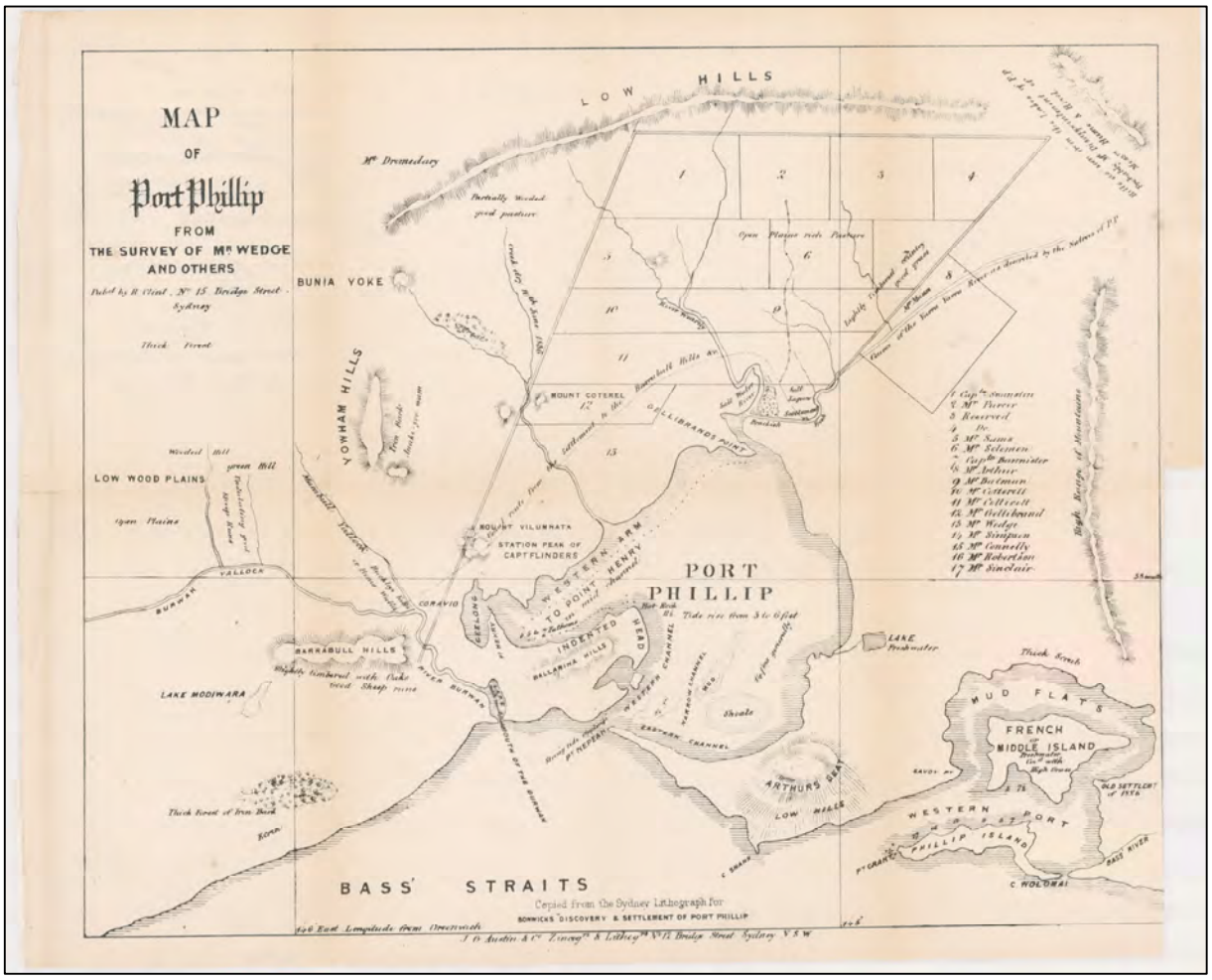


Figure 4-5 Map of the Allotments granted to The Port Phillip Association surveyed by Wedge (Source: http://nla.gov.au/nla.obj-416707851

Figure 4-6 1835 Map of the Port Phillip District, drawn by Wedge (Source: http://search.slv.vic.gov.au/)

The land within the study area has generally remained agricultural with clearing and ploughing as consistent broad impacts and with orcharding, equestrian tracks, and minor constructions associated with residences and farming, road construction and dams forming significant localised disturbance, with only minor changes, excepting the suburban creep in the geographic region surrounding the study area. This, as well as the locations of swamps, water courses and stony rises, can be seen in a series of aerial images between 1951 to today (Figure 4-13 - Figure 4-23), with aerials providing opportunities to identify current stony rise landforms (Figure 4-24).

Figure 4-7 1837 Surveyor's Map (study area roughly indicated in red) (Source: Pollitt 1961)

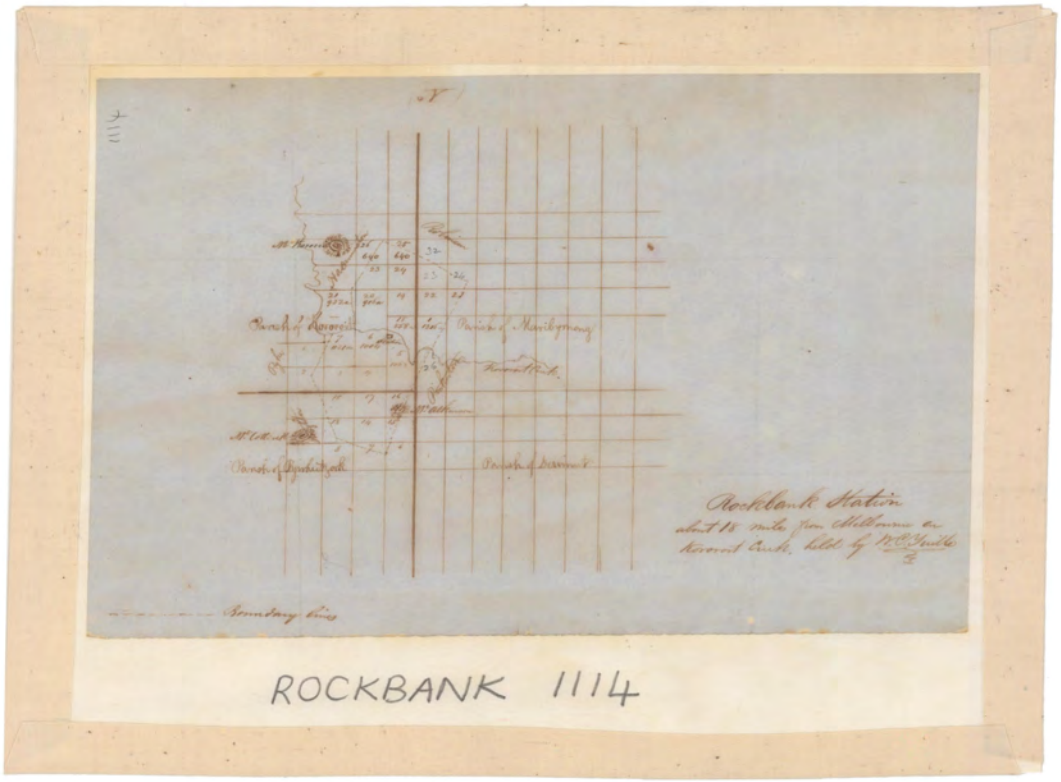


Figure 4-8 Pastoral runs (c. 1847) in the Rockbank region (Source: Public Records Office Victoria)

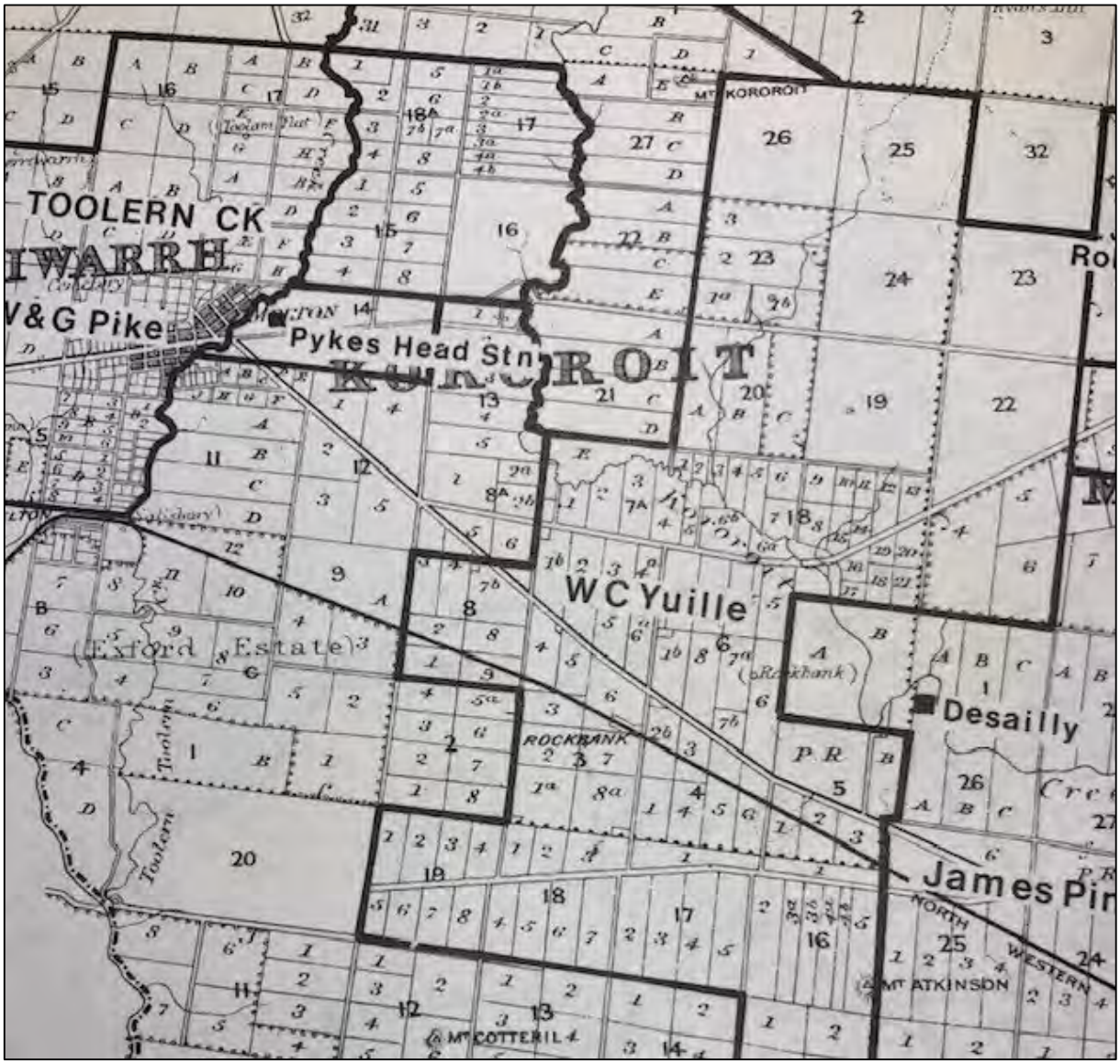


Figure 4-9 Squatting runs in the Settled Districts west of Melbourne (Source: Spreadborough & Anderson 1983)

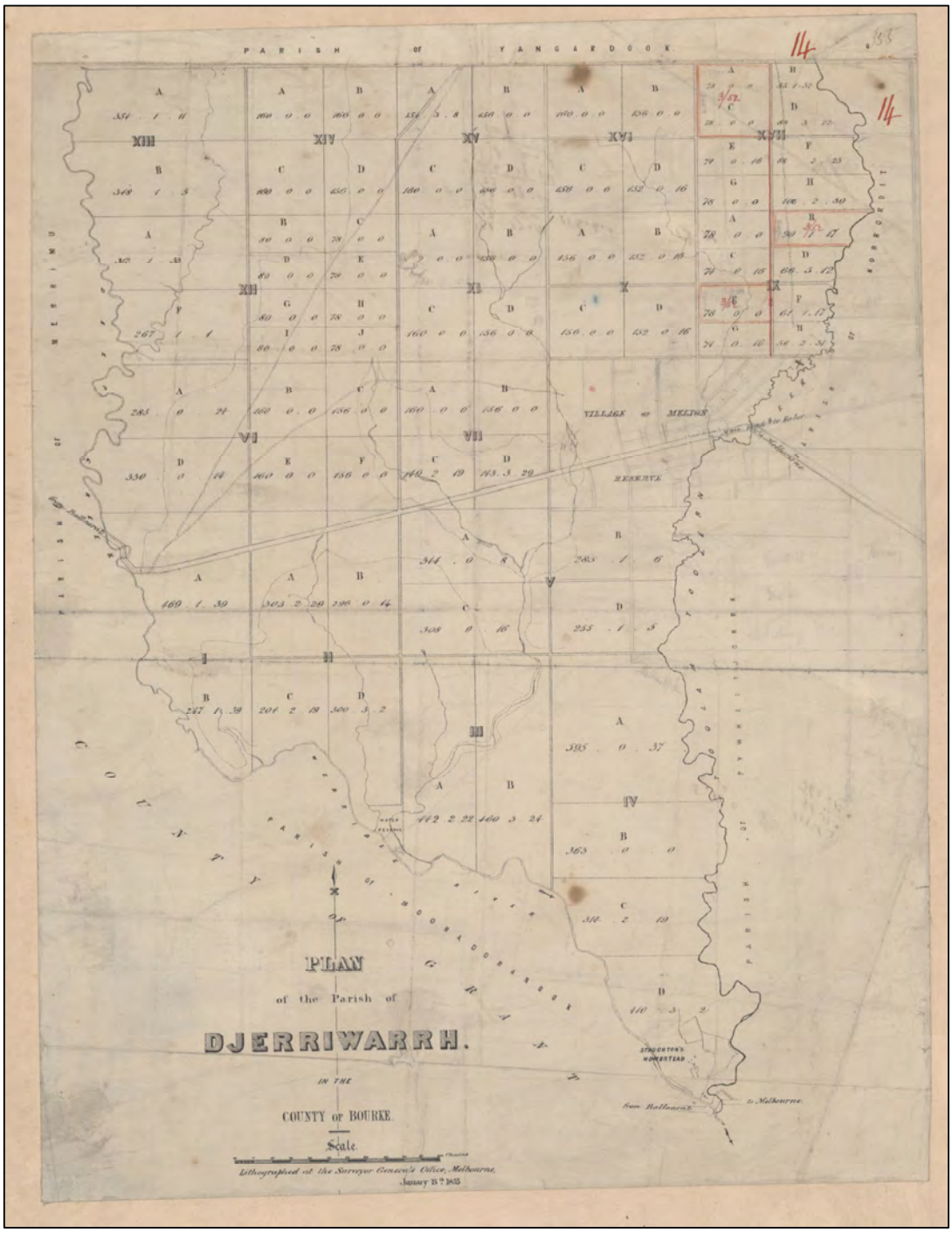


Figure 4-10 1855 Parish of Djerriwarrh map (study area roughly indicated in red) (Source: https://nla.gov.au/nla.obj-232489270/view)

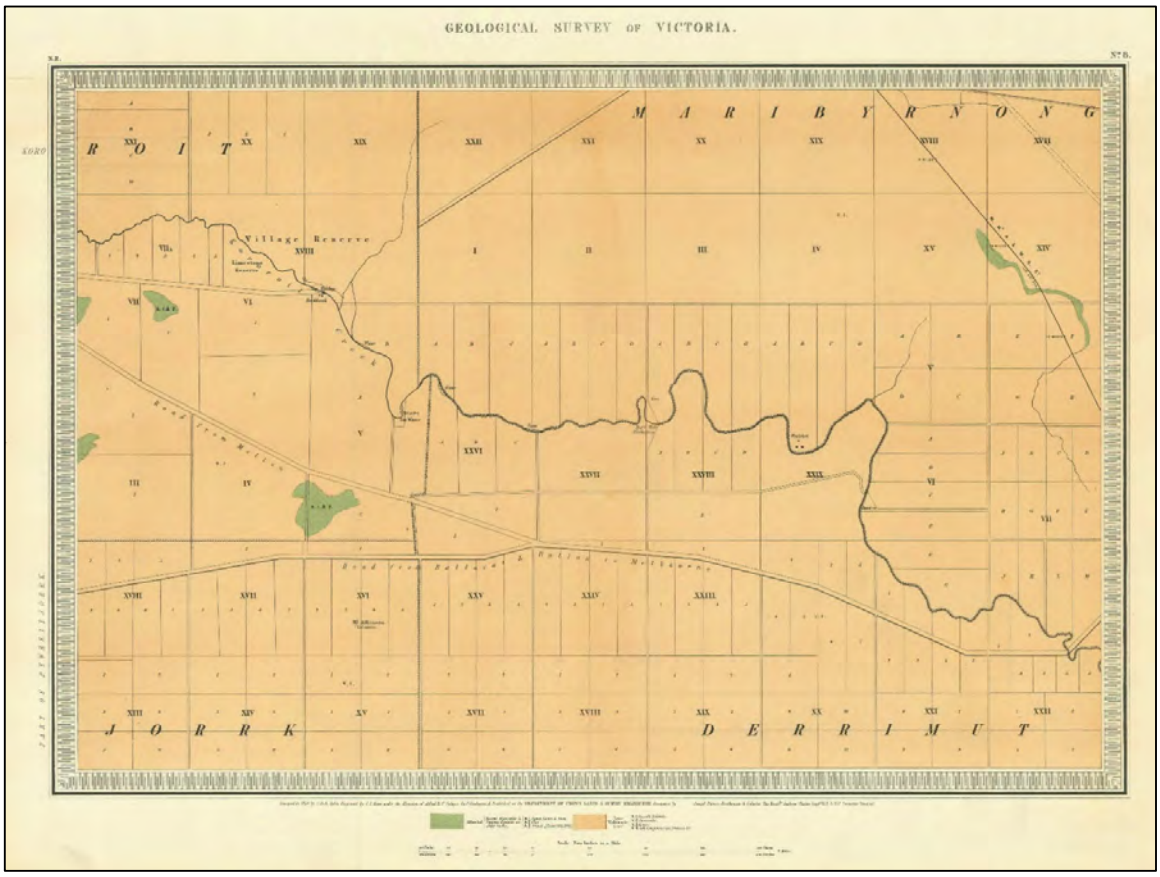


Figure 4-11 Department of Crown Lands and Survey Geological Map 1856 (source: State Library Victoria)

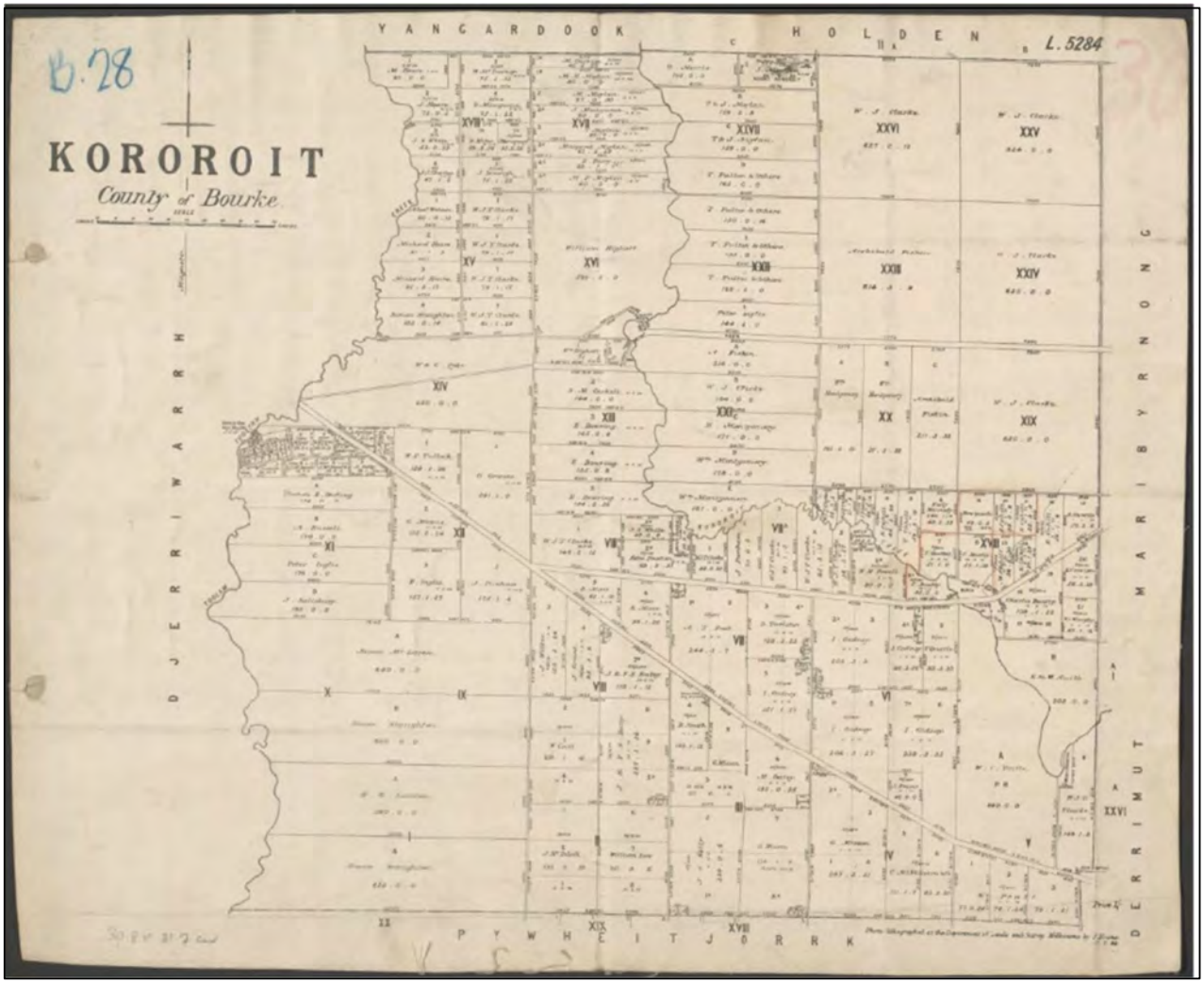


Figure 4-12 1888 Parish of Kororoit map (study area roughly indicated in red) (Source: https://nla.gov.au/nla.obj-232024575/view)

Figure 4-13 1951 aerial image showing the eastern section of the study area (source: www.landata.vic.gov.au)

Figure 4-14 1951 aerial image showing the southeastern section of the study area (source: www.landata.vic.gov.au)

Figure 4-15 1970 aerial image showing the western section of the study area (source: www.landata.vic.gov.au)

Figure 4-16 1975 aerial image showing the eastern section of the study area (source: www.landata.vic.gov.au)

Figure 4-17 1975 aerial image showing the western section of the study area (source: www.landata.vic.gov.au)

Figure 4-18 1975 aerial image showing the growth of the Township of Melton west of the study area (source: www.landata.vic.gov.au)

Figure 4-19 December 1995 aerial image of the study area (source: Google Earth Pro)

Figure 4-20 March 2010 aerial image of the study area (source: Google Earth Pro)

Figure 4-21 November 2017 aerial image of the study area (source: Google Earth Pro)

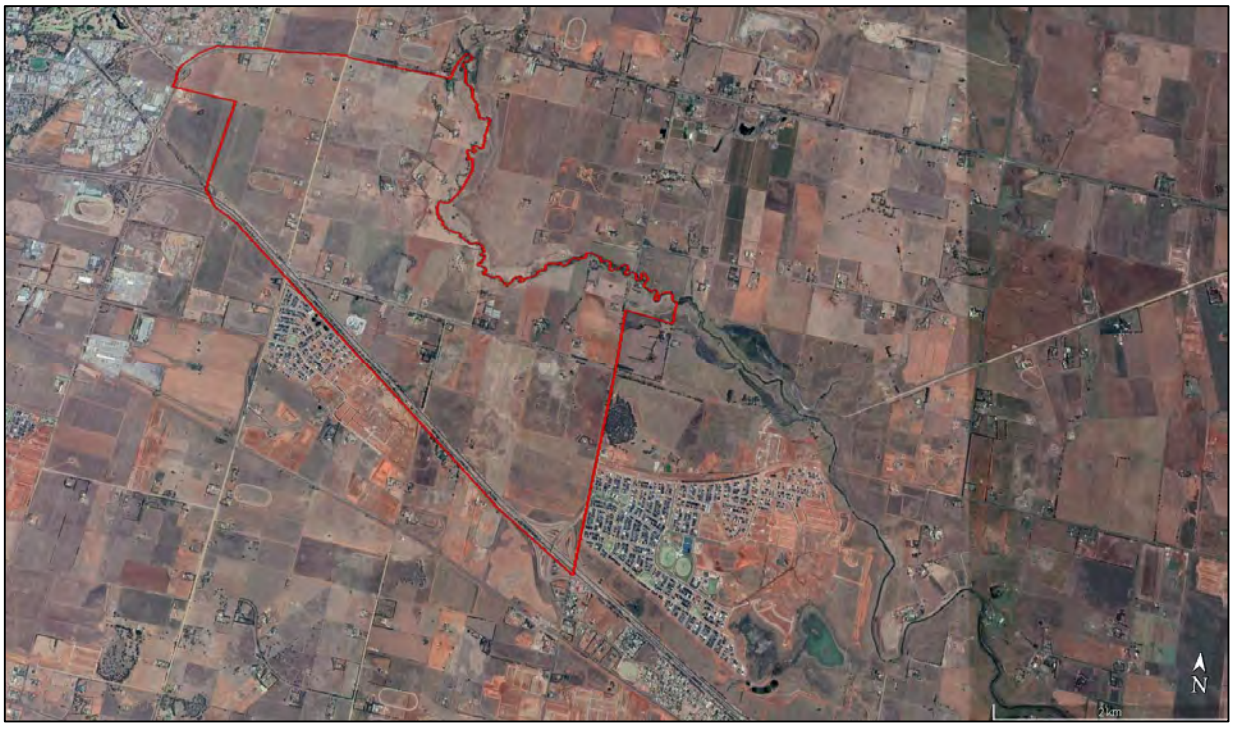


Figure 4-22 February 2019 aerial image of the study area (source: Google Earth Pro)

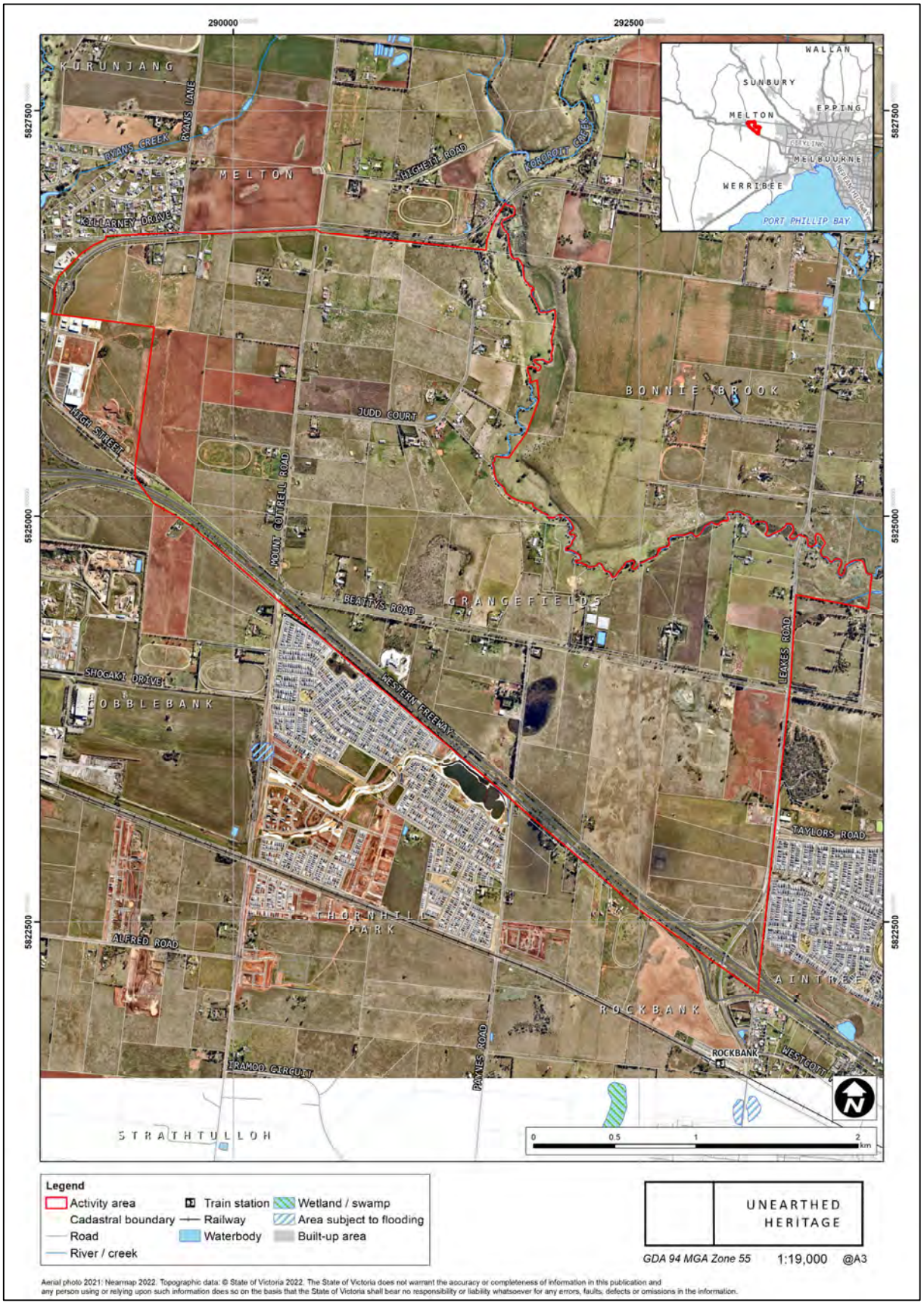


Figure 4-23 Existing conditions in the study area (source: Nearmap)

Figure 4-24 2010 aerial image of the study area showing visibility of stony rise landforms as unploughed (source: Google Earth Pro)

4.4 Archaeological Background

Note: Redacted

5 Archaeological Survey

Archaeological survey was undertaken within the study area.

5.1 Aims

The aims of the archaeological field are to:

- Identify and record any Aboriginal places within the study area;
- Revisit previously registered Aboriginal places within the study area;
- Undertake consultation with WWCHAC representatives;
- Validate desktop predictions regarding potential archaeological sensitivity, including confirming or rejecting mapped areas, identifying areas missed by the mapping and updating the extent of areas of archaeological sensitivity;
- Documenting the current ground conditions, including ground disturbance.

5.2 Timing and Personnel

The field survey was conducted over four days – 20-23 June 2022.

Table 5-1 Personnel involved in the standard assessment

Person	Project role	Organisation	Date(s)
Jordan Spencer	RAP field representative	WWCHAC	20 June 2022 21 June 2022 22 June 2022
Sharon Hunter	RAP field representative	WWCHAC	20 June 2022
Jason Anthony	RAP field representative	WWCHAC	21 June 2022
Gary Hansen	RAP field representative	WWCHAC	22 June 2022
Naomi Zukanovic	RAP field representative	WWCHAC	23 June 2022
Jonny Zukanovic	RAP field representative	WWCHAC	23 June 2022
David Mathews	Supervising archaeologist and heritage advisor	Unearthed Heritage Australia Pty Ltd	20 June 2022 21 June 2022
Anna Light	Supervising archaeologist and heritage advisor	Unearthed Heritage Australia Pty Ltd	20 June 2022 21 June 2022 22 June 2022 23 June 2022
Cameron Frost	Project Archaeologist	Unearthed Heritage Australia Pty Ltd	22 June 2022 23 June 2022

5.3 Archaeological Survey Methodology

As the study area is very large, a comprehensive survey of the entire study area was beyond the scope of this strategic assessment. Therefore, a combination of focussed sample survey and a landform analysis inspection was used in this survey. The two survey methodologies comprised:

- Focused sample survey (coverage depicted below) comprised pedestrian survey with a team of four participants (two archaeologists and two RAP field representatives – see Table 5-1) spaced c. 5 m apart, systematically traversing the survey area, with particular focus and scrutiny given to areas with higher visibility and/or areas displaying exposures of the subsurface, particularly those within areas of highest archaeological sensitivity. Focused sample survey was employed where:
    - property access was permitted
    - ground surface visibility was sufficient to warrant survey; and/or
- Landform analysis inspection was employed either where properties had minimal surface visibility and/or were predicted to be of lower archaeological sensitivity. Inspection occurred

either within the property with a targeted pedestrian survey, or from the boundaries of the property. The aim of the inspection method was to validate the predictive model (e.g. to confirm the extent of a particular landform/area of archaeological potential), to attempt to identify any archaeologically sensitive landforms not identified through Desktop Assessment, and to identify areas of higher surface visibility to target for comprehensive survey.

All mature native trees within the focused sample survey areas were inspected for signs of Aboriginal cultural scarring. No caves and/or rock shelters were identified during the current field survey. The proportion of the ground surface that was visible and the proportion of the subsurface that was exposed was recorded in focussed sample survey areas. Notes were also taken on the vegetation, soils, areas and types of ground disturbance, and landforms.

Specific conditions (e.g. potential archaeological sensitivity, disturbance), and features (e.g. Aboriginal cultural material) encountered were documented using a differential Global Positioning System (GPS) Unit (Trimble Catalyst DA1) with real-time kinematic (RTK) decimetre (c. 30-70 cm) accuracy.

5.4 Constraints

All in all, this survey was not highly constrained – there was access to all properties within the study area, and a reasonable sample of all landforms had some surface visibility. Having said this, surface visibility was the main limitation to this study. Many paddocks within the study area had grass or vegetation coverage providing minimal surface visibility (average of 1%). However, due to the strategic nature of this study, this is not considered to have significantly limited this study.

5.5 Results of the survey

5.5.1 Overview

The study area was sample surveyed on foot (see constraints above), with 100% survey coverage within the focussed sample survey areas (as detailed below), and the majority of other properties subject to some form of inspection (see above for methodology for inspections). The extent of foccused survey coverage is shown in Figure 5-1. Generally, foccused survey was focussed on areas of higher surface visibility and/or highest predicted archaeological sensitivity.

Three new Aboriginal places were identified during the current assessment, all surface stone artefact places:

- Kororoit Creek – Artefact Scatter 1 (VAHR 7822-4658)
- Beattys Road – Artefact Scatter 1 (VAHR 7822-4657)
- Kororoit Creek – LDAD 1 (VAHR 7822-4657)

Further detail on these places is presented in Section 6 below. The condition of the study area is essentially as outlined in the Desktop Assessment, in terms of the range of landforms and variable disturbance types and levels present within the study area. Flat volcanic plains are the dominate landform within the study area. Creek margins and escarpment are present adjacent to Kororoit Creek and wetlands are present toward the south of the study area including three prominent wetlands. Land clearance and agricultural activities have been extensive within the study area. Localised stony rises were also identified.

Figure 5-1 Example of the volcanic plains landform

Figure 5-2 Property ID 70 – example of area of with high ground surface visibility

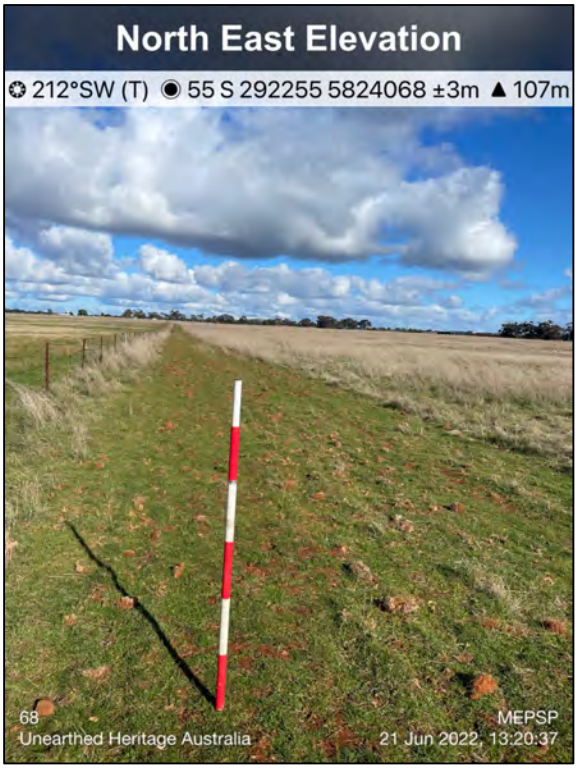


Figure 5-3 Property ID 68– Typical ground surface visibility at the time of the survey

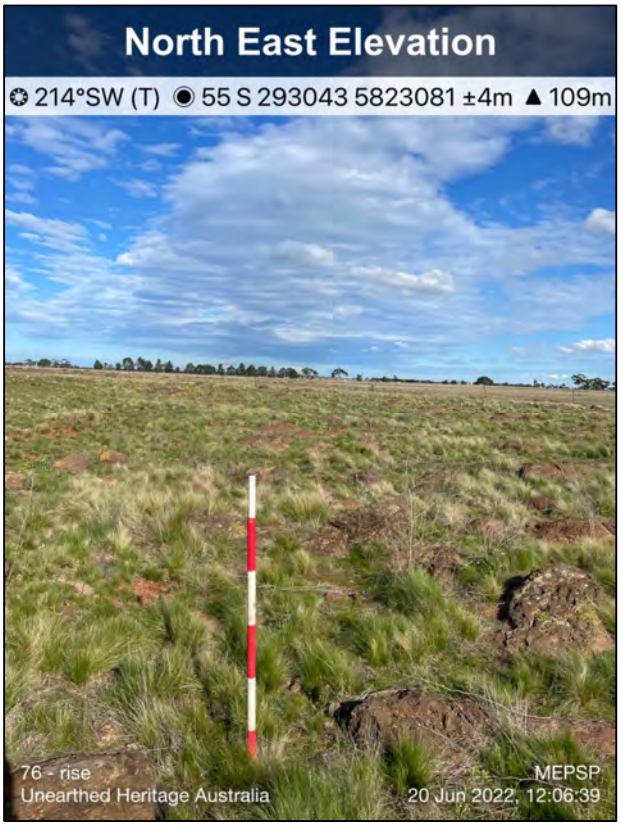


Figure 5-4 Property ID 76 – example of area of a stony rise

Figure 5-5 Property ID 48 – Swamp / wetlands landform

Figure 5-6 Property ID 18 – Land adjancet to Kororoit Creek (right of frame) and escarpment (left of frame)

Figure 5-7 Property ID 18 – Kororoit Creek towards the north of the study area

Table 5-2 Field survey – summary results sorted by property ID

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
1	Not accessed						
2	Not accessed						
3	Not accessed						
4	23-Jun-22	Pedestrian	Residence, driveway, landscaping, old plough lines, dam	Possible former natural drainage line between swamps crossing this property: low sensitivity for low-moderate density stone artefact occurrences	Thick grass cover with a short lawn in residential area and long and thick cover in the remainder of the property with occasional exposure at fences. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
5	23-Jun-22	Inspection	Residence, driveway, landscaping, old plough lines, dam, orchard (olives?)	Pronounced rise overlooking ephemeral drainage line on #4 with view toward south and with Mt Holden to north and Mt Cottrell to south: low sensitivity for low-moderate density stone artefact occurrences	Thick grass across property with expected exposure associated with disturbance (fences etc.)	<1%	Viewed from #13
6	22-Jun-22	Inspection	Residence & trees at southeast and thick grass paddocks across remainder	flat land not far back from edge of steep escarpment overlooking Kororoit Creek: low-moderate sensitivity for low-moderate density artefact occurrences	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Judd Court
7	Not accessed						
8	Not accessed						
9	Not accessed						
10	23-Jun-22	Inspection	Driveway, residence, sheds, old plough lines	flat to gently sloping land with possible former drainage line between swamps in northeast (via aerial)	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Mt Cottrell Rd

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
11	23-Jun-22	Pedestrian	Old plough lines, fences	Flat land: low sensitivity for low density stone artefact occurrences	Thick, short grass across the property with c. 10% vis associated with old plough lines	c. 10%	
12	22-Jun-22	Inspection		Flat land above escarpment with steep escarpment and wide creek flat adjacent to Kororoit Creek: Moderate to high sensitivity with sensitivity increasing closer to creek, particularly above escarpment and on creek flat. Artefact density increase closer to creek and escarpment edge	Thick short grass	<1%	
13	23-Jun-22	Pedestrian	Driveway, residence, sheds, fences	Flat to gently undulating at west with gentle rise at centre of property with view toward south and with Mt Holden to north and Mt Cottrell to south: low sensitivity for low density stone artefact occurrences	Thick short grass across property with exposures ass ociated with disturbance. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
14	22-Jun-22	Inspection	Thickly grass paddocks	Flat to gently sloping land (down to east): low sensitivity for low density artefact occurrences	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Judd Court
15	22-Jun-22	Pedestrian	Levelled with gravel driveways, residence, fences, stock, cleared rock into circles/piles	Flat land not far from edge of steep escarpment overlooking Kororoit Creek: Moderate sensitivity for low -moderate density artefact occurrences	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
16	23-Jun-22	Inspection	Trees, old plough lines	Flat to gently sloping land (down to east): low sensitivity for low density artefact occurrences	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Mt Cottrell Rd

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
17	23-Jun	Inspection	Driveway, residence, sheds, fences	Flat to gently undulating: low sensitivity for low density stone artefact occurrences	Thick short grass across property with exposures associated with disturbance. Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from #13
18	20-Jun	Pedestrian	Driveway, residence, sheds, fences. Orchards	Flat land extended to Kororoit Creek with a steep escarpment down to creek flat (floodplain): Moderate to high sensitivity with sensitivity increasing closer to creek, particularly above escarpment and on creek flat. Artefact density increase closer to creek and escarpment edge	Thick short grass across property with exposures associated with disturbance. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
19	22-Jun-22	Pedestrian	Levelled with gravel driveways, residence, fences, stock	Flat land not far from edge of steep escarpment overlooking Kororoit Creek: low-moderate sensitivity for low -moderate density artefact occurrences	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
20	22-Jun-22	Inspection	Thickly grass paddocks	Flat to gently sloping land (down to east): low sensitivity for low density artefact occurrences	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Judd Court
21	23-Jun	Pedestrian	Residence, driveway, landscaping, old plough lines, dam, bluestone garden beds or cottage footings?	Slopes gently toward east with possible former drainage line and former swampy area at northeast (aerial and ground truthed): low sensitivity for low-moderate density stone artefact occurrences	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
22	No						

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
23	22-Jun	Pedestrian	Sheds, trees, fences	Flat and extending to sheer, rocky faced escarpment overlooking flats associated with Kororoit Creek: Moderate to high sensitivity with sensitivity increasing closer to creek, particularly above escarpment and on creek flat. Artefact density increase closer to creek and escarpment edge	Thick, short grass across property with long grass on creek flat and exposures only at gates/fences	<1%	
24	23-Jun	Inspection	Shed, fences, stock, visible plough lines	Slopes gently down towards east: low sensitivity for low density artefact occurrences	thick, short grass across property with exposures associated with disturbance (fences and stock trampling, etc) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Mt Cottrell Road
25	22-Jun-22	Inspection	Thickly grass paddocks	Flat to gently sloping land (down to east): low sensitivity for low density artefact occurrences	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Judd Court
26	No						
27	No						
28	No						
29	23-Jun	Pedestrian	Sheds / animal enclosures, plough lines	Slopes gently down towards east. Visible ground shows shallow and degraded topsoils: Low sensitivity for low density artefact occurrences	Thick, long grass across property with expected exposure associated with disturbances (fences and vehicle tracks) Grassed = nil GSV, exposures = 80-100% GSV	<1%	

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
30	22-Jun-22	Inspection	Clearing, trees, fences	Flat and extending to escarpment overlooking flats associated with Kororoit Creek: Moderate to high sensitivity with sensitivity increasing closer to creek, particularly above escarpment and on creek flat. Mature eucalyptus trees present by Kororoit Creek. Artefact density increase closer to creek and escarpment edge	Floodplain area thickly grassed	<1%	Photographed floodplain area of Property #30 from #23.
31	22-Jun-22	Pedestrian	Residence, driveway, pool, orchard, fences, dam	Generally flat land with drainage line joining swamps: low sensitivity for low-moderate density stone artefact occurrences	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
32	23-Jun-22	Inspection	House, sheds, fences, vehicle tracks, racing track/circuit	Gently sloping down toward east: low sensitivity for presence of low density artefact occurrences	Thick, short grass and weed cover with exposures associated with ground disturbance (driveways etc). Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from Mt Cottrell Road and from within Property #38
33	No						
34	22-Jun-22	Pedestrian	Residence, sheds, fences, vehicle activity, dam, driveway, camel burial, elevated track (poss pipeline?)	Land sloping to south with drainage line feeding swamp extending through south of property, exposed basalt present not as pronounced rises: low sensitivity for low-moderate density stone artefact occurrences	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
35	22-Jun-22	Inspection	Residence, sheds, fences, vehicle activity	Land sloping to south	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Photographs of back paddocks from #48

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
36	22-Jun-22	Inspection	Residence, sheds, fences, vehicle activity	Land sloping to south	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Photographs of back paddocks from #48
37	No						
38	23-Jun-22	Pedestrian	Residence, sheds, fences, driveway	Gently sloping toward east: low sensitivity for presence of low density artefact occurrences	Thick, long grass in paddocks away from residence and sheds with very limited exposures present. Grassed = nil GSV, exposures = 80-100% GSV	<1%	Two isolated surface artefacts identified (SA32 & SA32) on gravel driveway and on an exposure
39	No						
40	21-Jun-22	Pedestrian	Residence, driveway, fences, sheds	Flat to gently sloping (down to north) land with frontage to Kororoit Creek: High sensitivity for moderate-high density artefact occurrences in proximity to creek and low density at greater distanced from creek	Short, thick grass cover with long grass at creek and exposure associated with tree bases and fences. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
41	23-Jun	Pedestrian	Residence, sheds, driveway, gates, cleared basalt, fences	Gently sloping to east overlooking large swamp, on slightly higher land to west possible former swamp (appears swampy), exposed basalt and stony rises: moderate-high sensitivity for low and moderate density artefact occurrences, mainly in proximity to swamp margins and associated with rises	Thick, short grass with exposures at fences, gates and rabbit warrens. Grassed = nil GSV, exposures = 80-100% GSV	<1%	Puppy farm
42	No						
43	No						

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
44	No						
45	23-Jun-22	Inspection	Residence, sheds, trees, drieways, old ploughing	Possible former swampy area at southeast but unsure. Low sensitivity for low density artefact occurrences with increased sensitivity if swamp confirmed	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
46	No						
47	No						
48	22-Jun-22	Pedestrian	Residence, sheds, driveway, fences, ploughing (swamp floor ploughed in last 5 years	Pronounced swamp with higher, treed margins and remainder generally flat: high sensitivity at swamp margins for moderate to high density artefact scatters with decreasing sensitivity and density with distance from swamp	Thick, long grass with exposures present at edges of former swamp floor. Grassed = nil GSV, exposures = 80-100% GSV	<1%	Artefact scatter identifed
49	No						
50	21-Jun	Pedestrian	Stock, residence, sheds, fences, cactus, driveway	Flat land with very slight slope toward north (toward creek): Low-Moderate sensitivity for low to moderate density stone artefact occurrences (sensitivity highest at south and decreasing toward north with distance from creek)	Thick, short grass with exposures associated with stock activity. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
51	23-Jun	Inspection	Structures, residence, driveway in southwest	Swamp and swamp margins: high sensitivity at swamp margins for moderate to high density artefact scatters with decreasing sensitivity and density with distance from swamp	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from #41 & #48
52	No						
53	No						

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
54	21-Jun	Pedestrian	driveway, residence, sheds, fences	Gently sloping toward north with a steeper slope to a terrace on Kororoit Creek: High sensitivity for moderate to high density stone artefact occurrences at the creek terrace and in proximity to creek with decreasing sensitivity with distance from creek toward a low to moderate sensitivity for low density stone artefact occurrences further from creek	Short, thick grass cover with occasional exposure associated with fences, driveways and gates and creek terrace. Grassed = nil GSV, exposures = 80-100% GSV	<1%	Artefact Scatter newly identified
55	20-Jun	Pedestrian	House, trees, fences, driveways	Flat with a gentle slope to Kororoit Creek where a steeper slope is present: High sensitivity for moderate to high density stone artefact occurrences in proximity to creek with decreasing sensitivity with distance from creek with moderate sensitivity for low density stone artefact scatters further south	Short, thick grass cover with occasional exposure associated with fences, driveways and gates and trees/rabbits at creek. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
56	20-Jun	Pedestrian	House, trees, fences, driveways	Flat with a gentle slope to Kororoit Creek where a steeper slope is present: High sensitivity for moderate to high density stone artefact occurrences in proximity to creek with decreasing sensitivity with distance from creek with moderate sensitivity for low density stone artefact scatters further south	Short, thick grass cover with occasional exposure associated with fences, driveways and gates and trees/rabbits at creek. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
57	21-Jun	Pedestrian	driveway, residence, sheds, fences, ploughing	Flat land between rise to north and creek to south: low-moderate sensitivity for low density artefact occurrences	Thick, short grass with exposures associated with stock activity. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
58	No						

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
59	20-Jun-22	Pedestrian	residences, structures, driveways, market garden green houses	Flat with a gentle slope to Kororoit Creek where a steeper slope is present: High sensitivity for moderate to high density stone artefact occurrences in proximity to creek with decreasing sensitivity with distance from creek with moderate sensitivity for low density stone artefact scatters further south	Short, thick grass cover with occasional exposure associated with fences, driveways and gates and trees/rabbits at creek. Grassed = nil GSV, exposures = 80-100% GSV	<1%	
60	No						
61	No						
62	21-Jun-22	Pedestrian	Service station (south), vehicle activity & rubbish dumping (north)	Gently sloping toward swamp in north: low to moderate sensitivity for low-moderate density stone artefact occurrences at north of property in proximity to swamp margin	Sealed at south and thick grass cover at north excepting vehicle track. Grassed or sealed = nil GSV, exposures = 80-100% GSV	<1%	
63	21-Jun-22	Inspection	ploughing, structures, trees, fences, vehicle activity	prominent slope (upper slope): low-moderate sensitivity for low density stone artefact occurrences	Thick, short grass across the property with c. 10% vis associated with old plough lines	<1%	Viewed from Leakes Rd. Location of 7822-3745
64	21-Jun-22	Inspection	fences, residence, structures	gently sloping south toward swamp: moderate sensitivity for low-moderate density artefact occurrences with highest sensitivity/density closer to swamp margins	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Viewed from #66
65	No						
66	21-Jun-22	Pedestrian	residence, fences, sheds, orchards, ploughing, possible fill at north boundary	gently sloping southeast toward swamp: moderate sensitivity for low-moderate density artefact occurrences with highest sensitivity/density closer to swamp margins	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
67	21-Jun-22	Pedestrian	residence, trees at north, pipeline, former CHMP trench	large (full) swamp wth surrounding land sloping toward swamp: High sensitivity for moderate-high density stone artefact occurrences surrounding swamp margin	Thick grass cover, water cover with no GSV and occasional exposures along fence at east and at backfilled CHMP trench. Grassed/swamp water = nil GSV, exposures = 80-100% GSV	<1%	Location of previously registered place 7822-4500 with one additional associated artefact identified (SA27) on surface of backfilled CHMP trench
68	21-Jun-22	Pedestrian	sheds, fences, trees, stock activity	gently sloping south and west toward swamp (overlooking swamp): High sensitivity for moderate-high density stone artefact occurrences surrounding swamp margin	Thick grass across property with exposure associated with disturbance (fences, stock tracks etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	SA28, SA29 & SA30 identified on stock track exposures at west fence line, likely associated with 7822-4500
69	21-Jun-22	Inspection	Dam, ploughing, orchard, fences,				Inspection from Paynes Rd
70	20 & 22 June-22	Inspection	Stock tracks, fences, trees and structures	stony rises overlooking swamp: high sensitivity for moderate to high density stone artefact occurrences on swamp margins and stony rises	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	Inspected from #72 and #71 and #76

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
71	20-Jun-22	Pedestrian	Basalt clearance, ploughing, residence, trees, fences	Stony rises on slope overlooking swamp to west and gently sloping toward north: Moderate to High sensitivity for moderate to high density stone artefact occurrences where stony rises are present at swamp margin, with moderate sensitivity for low density artefact occurrences at greater distance from these landforms	Recently ploughed with generally 90-100% GSV	90-95%	
72	22-Jun-22	Pedestrian	Basalt clearance, ploughing, trees, fences, residence	Stony rises on slope overlooking swamp to east: Moderate to High sensitivity for moderate to high density stone artefact occurrences on stony rises and swamp margin, with moderate sensitivity for low density artefact occurrences at greater distance from these landforms	Thick grass and vegetation and some exposure at stony exposures and trees. Grassed = nil GSV, exposures = 80-100% GSV	<1%	SA31 on stony rise at east boundary. Possible rockwell?
73	21-Jun-22	Inspection		Generally flat land with possible stony rise at east and swamp margin at north: moderate sensitivity for low to moderate density artefact occurrences at swamp margin and on stony rise with low sensitivity for low density artefact occurrences elsewhere	Thick grass across property with expected exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
74	20-Jun-22	Pedestrian	Demolished house location with gravels, fences, driveway planted trees	Flat land at top of hill: low-moderate sensitivity for low density stone artefact occurrences	Demolition materials present		
75	No						

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
76	20-Jun-22	Pedestrian	fences, ploughing	stony rises on top of hill overlooking swamp to north and gently sloping to south: moderate sensitivity for low-moderate density stone artefact occurrences at stony rise locations and moderate sensitivity for low density stone artefact occurrences elsewhere off this landform	Thick grass across property with exposure associated with disturbance (fences etc.) Grassed = nil GSV, exposures = 80-100% GSV	<1%	
77	Access nor proximal viewing location available due to roadworks						
78	Access nor proximal viewing location available due to roadworks						
79	No						
80	Access nor proximal viewing location available due to roadworks						
81	Access nor proximal viewing location available due to roadworks						
82	Access nor proximal viewing location						

Property ID	Date Accessed	Access Type	Visible Disturbance	Archaeological sensitivity comment	GSV	Overall GSV %	General Comment
	available due to roadworks						
83	Access nor proximal viewing location available due to roadworks						
84	Access nor proximal viewing location available due to roadworks						
85	No						

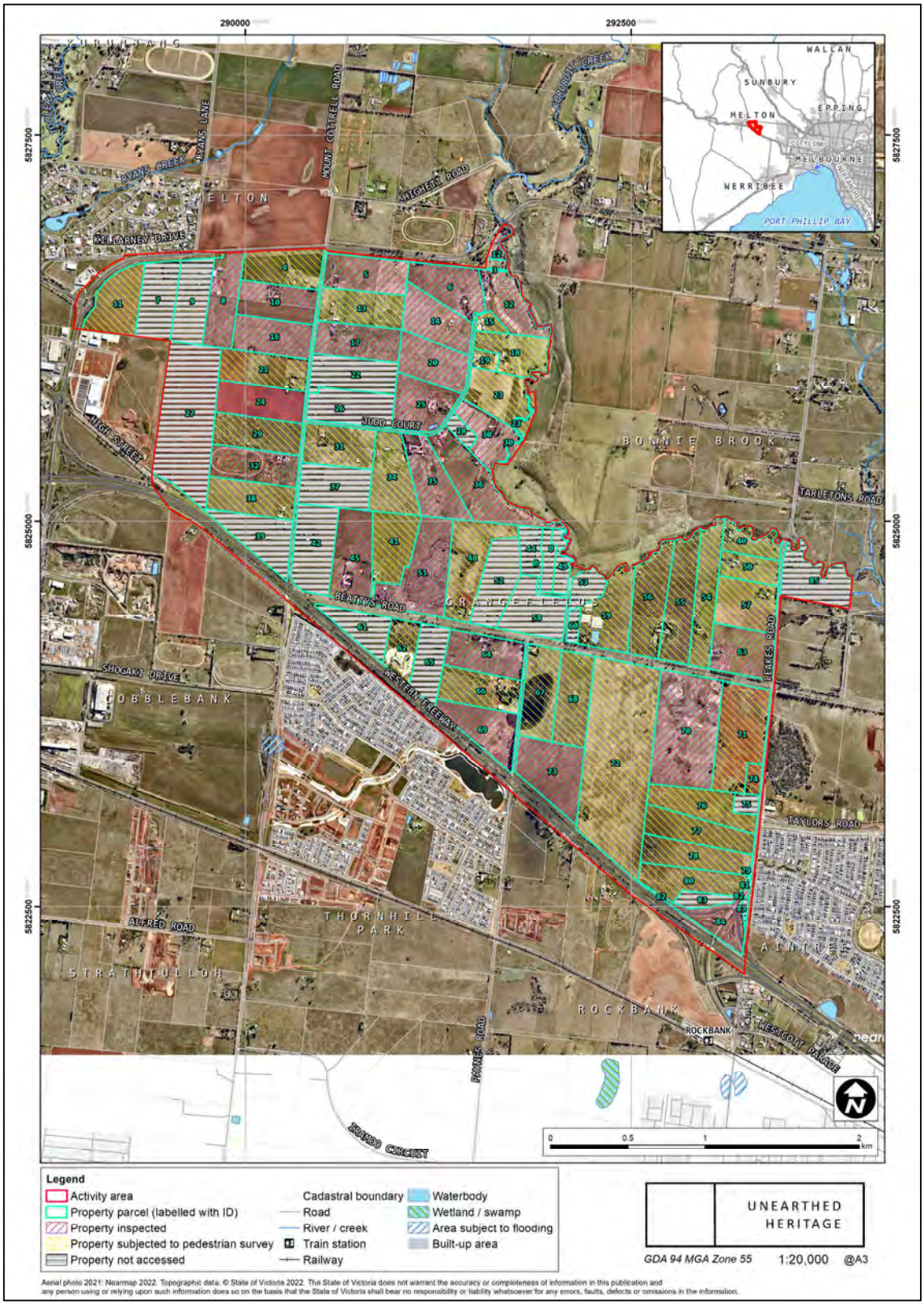


Figure 5-8 Field survey results including details of survey coverage

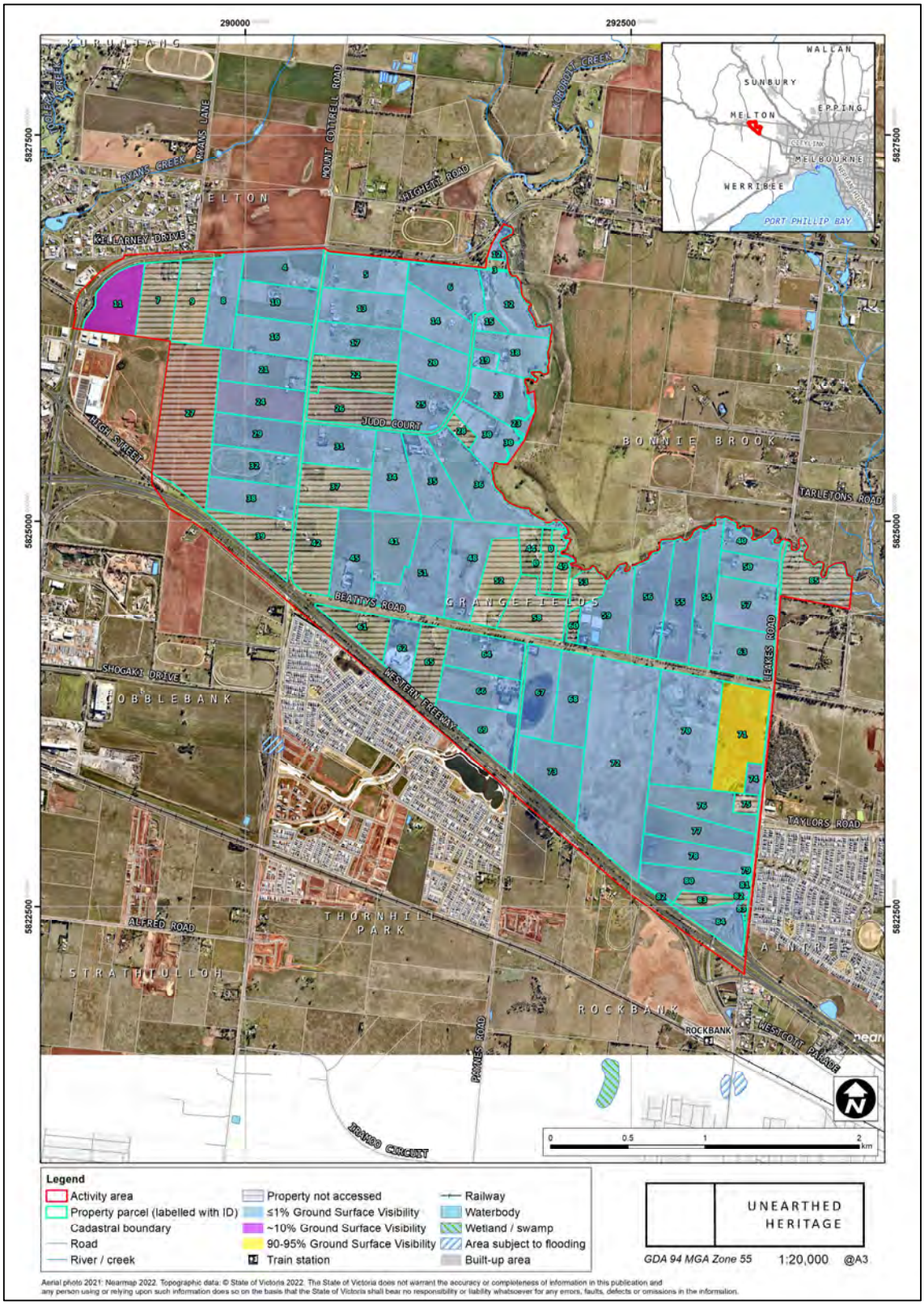


Figure 5-9 Field survey results including details of ground surface visibility

Redacted

Figure 5-10 Field survey results including location of surface artefacts

6 Aboriginal Cultural Heritage

Note: Redacted

7 Archaeological Predictive Mapping

7.1 Introduction

Archaeological sensitivity predictive mapping was developed to assist in guiding planning, future development and Aboriginal heritage management within the PSP.

This sensitivity was developed through the following iterative process:

- Following the desktop assessment, initial archaeological predictions for the study area were used to develop initial archaeological sensitivity mapping.
- Sample survey was used to validate the predictions made in the sensitivity mapping, and to further refine the mapping based on observations to update archaeological sensitivity predictive mapping.

7.2 Archaeological sensitivity

Based on the results of the desktop assessment and the archaeological survey, the most likely types of Aboriginal places to be found across the study area are:

- Those comprising flaked stone artefacts, either as single isolated artefacts or scatters of stone artefacts ranging from extensive and higher density to smaller and/or diffuse scatters are the most likely Aboriginal place type.
    - Stone artefacts will predominantly be fashioned from silcrete, quartzite and quartz;
    - Larger and more densely concentrated stone artefact scatters will be located adjacent to water and/or on land adjacent to the upper escarpment edge;
    - Isolated or small and/or diffuse scatters of artefacts may occur anywhere within the study area.
- Scarred trees may once have been prolific within the study area, however, due to large-scale vegetation clearance, will now be restricted to areas of remnant, mature native trees;
- For stone features, while potential is low-moderate, these may be located anywhere on the landscape likely to have had ceremonial activity and/or higher cultural significance, and as such is not necessarily as environmentally determined as other Aboriginal place types;
- Suitable stone sources (quarries) may occur within the study area, however seem unlikely based on the underlying geology.

Based on the findings of this assessment, it is predicted that Aboriginal places are most likely to occur according to the following landforms with associated archaeological sensitivities:

- Land adjacent to the edge of the escarpment – Moderate-high archaeological sensitivity, especially for artefact scatters;
- Land adjacent to waterbodies and/or swamps – Moderate archaeological sensitivity, especially for artefact scatters, scarred trees, earth features and stone arrangements, with elevated land around waterbodies and/or swamps being of High archaeological sensitivity;
- Land adjacent to Kororoit Creek –High archaeological sensitivity, with sensitivity decreasing as distance increases,

- waterbodies – Low-Moderate archaeological sensitivity, particularly where seasonally dry, and especially for scarred trees and earth features;
- Volcanic Plain – Low archaeological sensitivity, most likely Aboriginal place types being low-density scatters or isolated occurrences of stone artefacts, or potentially scarred trees if remnant, mature native trees occur;
- Elevated Volcanic Plain – Low to moderate archaeological sensitivity, most likely Aboriginal place types being low-density scatters or isolated occurrences of stone artefacts, or potentially scarred trees if remnant, mature native trees occur;

This predictive mapping was constructed to predict the most likely locations of as yet registered Aboriginal places.

An important note to this mapping is that it does not encompass predictions regarding cultural values and/or intangible heritage to the Aboriginal community. Such things are unlikely to be able to be predicted by a scientific model, such as this. These concerns can only be identified in consultation with traditional owners (in this case with appropriate knowledge holders and/or Elders from the RAP). A Cultural Values Assessment was undertaken in parallel with this assessment to attempt to rectify this to some extent. A CVA has been prepared in parallel with this ACHIA. **Cultural Values and archaeological evidence are both needed to develop a holistic understanding of Wurundjeri Woi-wurrung cultural heritage.** While cultural values are unable to be predicted by a scientific model, the results of the CVA reflects the information outlined in the ACHIA. Cultural Value concerns can only be identified in consultation with traditional owners (in this case with appropriate knowledge holders and/or Elders of the Wurundjeri Woi-wurrung community). The archaeological sensitivity model (Figure 7-6) is only informed by the potential for archaeological material to be present (e.g. buried stone artefacts), and does not include any Wurundjeri Woi-wurrung cultural values that were recorded for the Cultural Values Assessment for Melton East PSP. Proponents of development activities must also refer to the map of cultural values provided in the Cultural Values Assessment for Melton East PSP, and ensure that harm is avoided to these cultural values during their development activities.

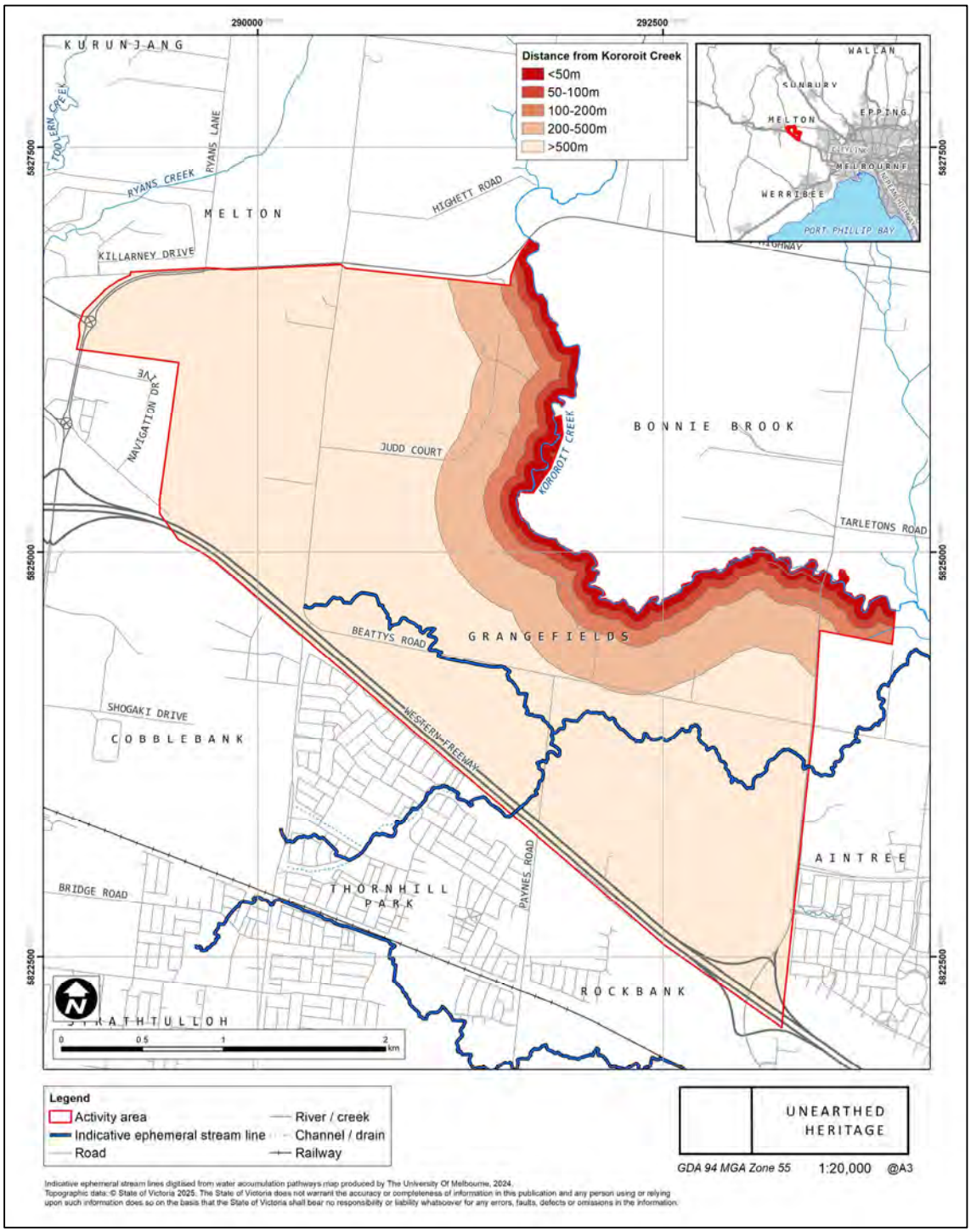


Figure 7-1 Archaeological predictive model – Distance from Kororoit Creek layer

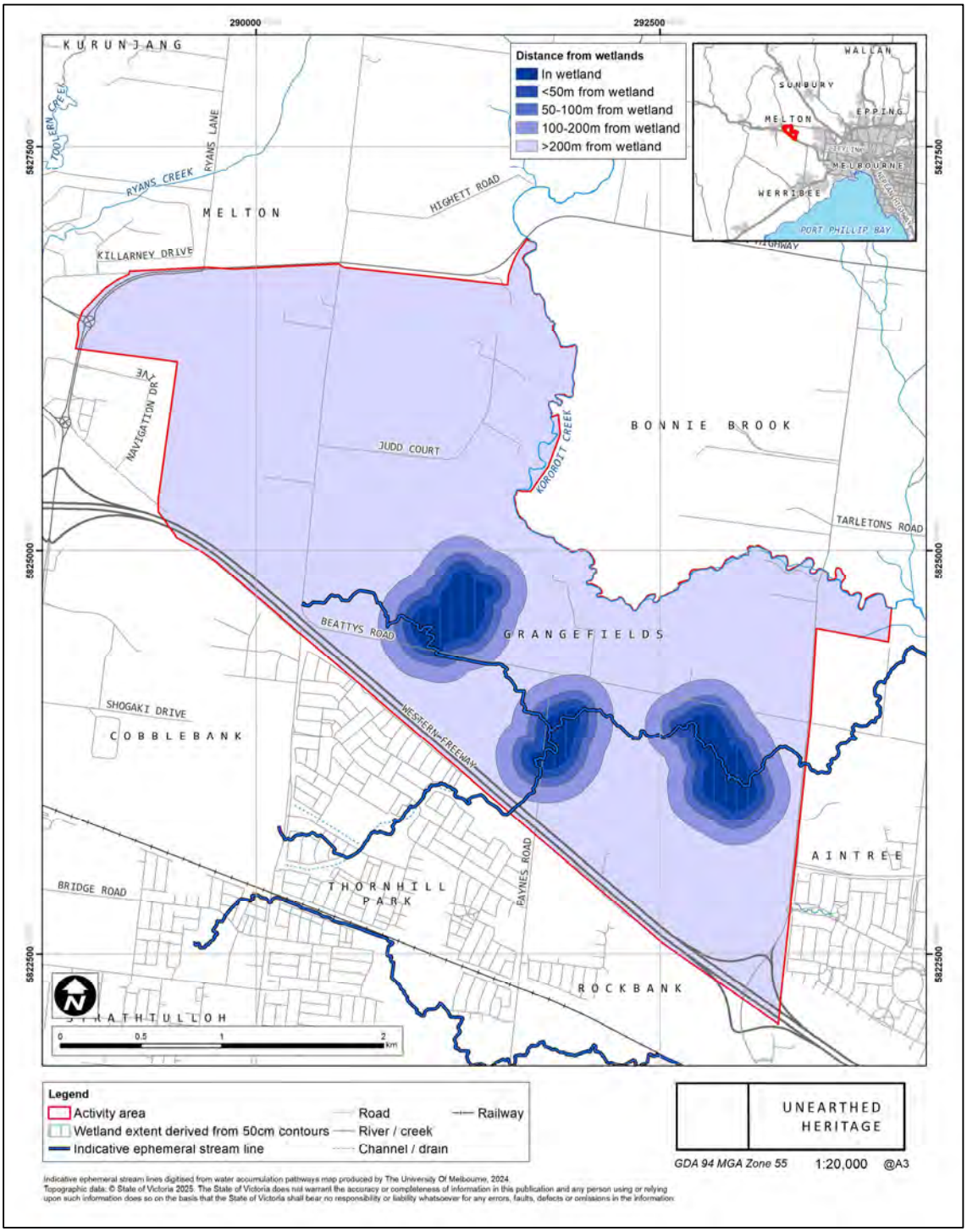


Figure 7-2 Archaeological predictive model – Distance from wetland layer

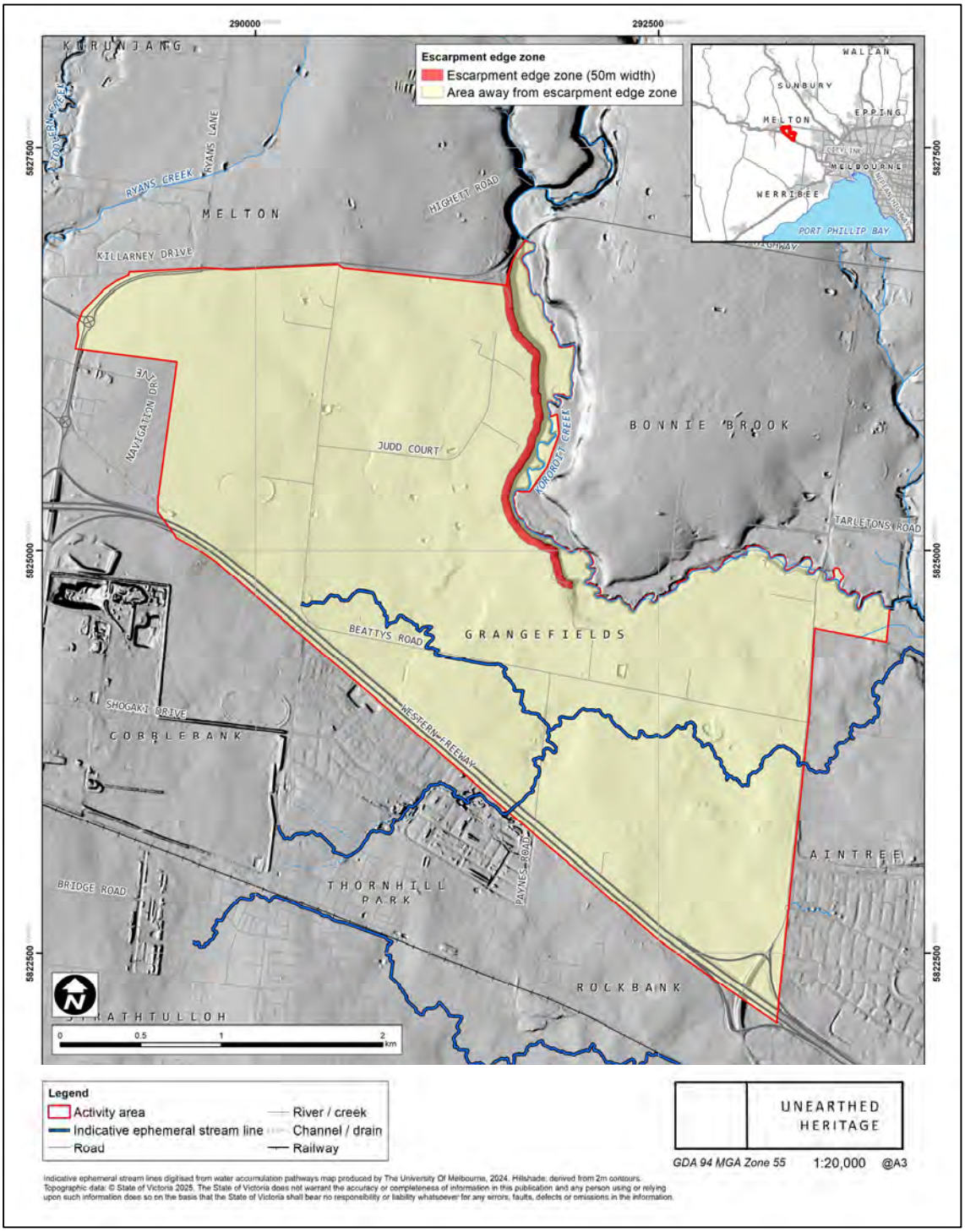


Figure 7-3 Archaeological predictive model – Escarpment layer

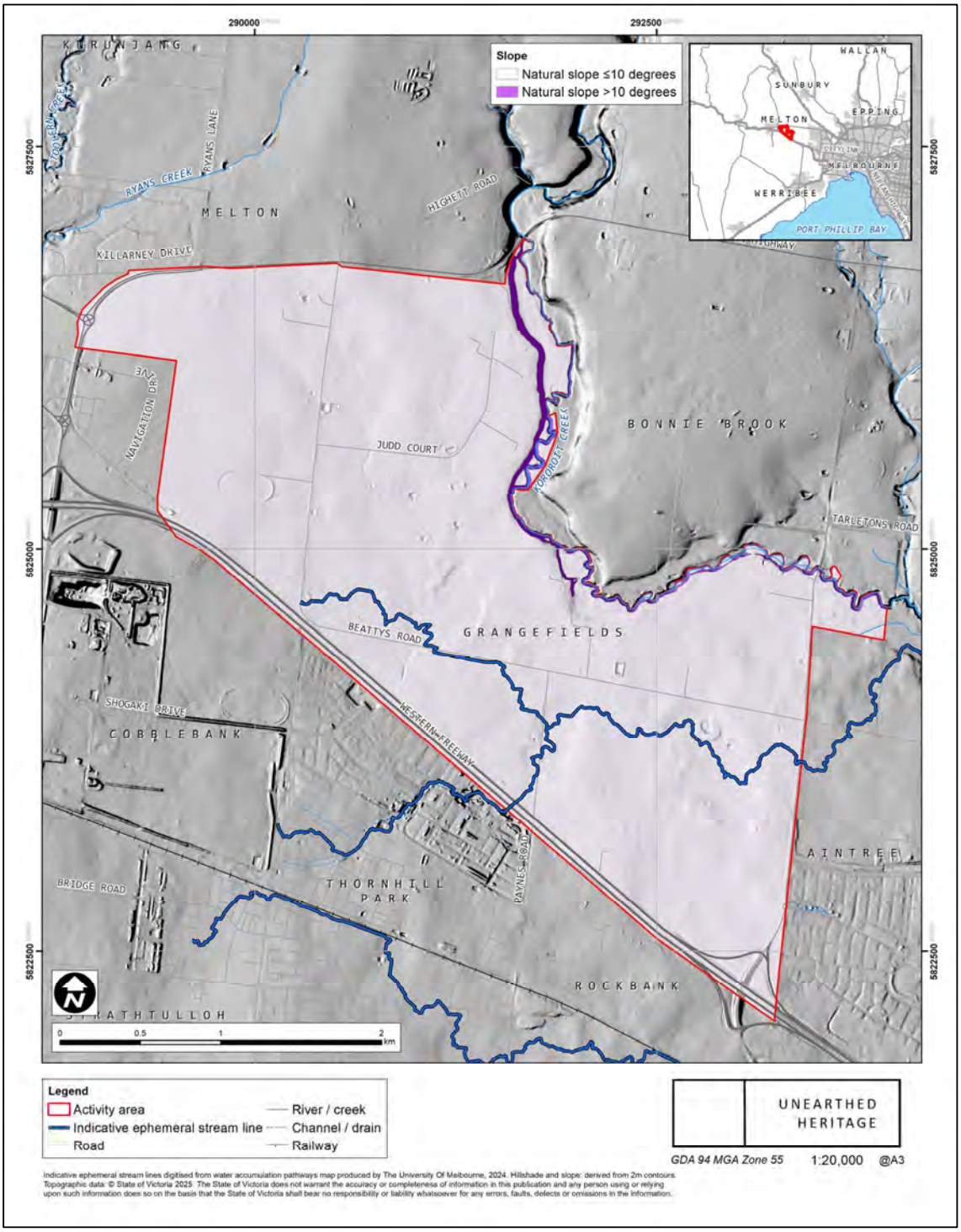


Figure 7-4 Archaeological predictive model – Slope layer

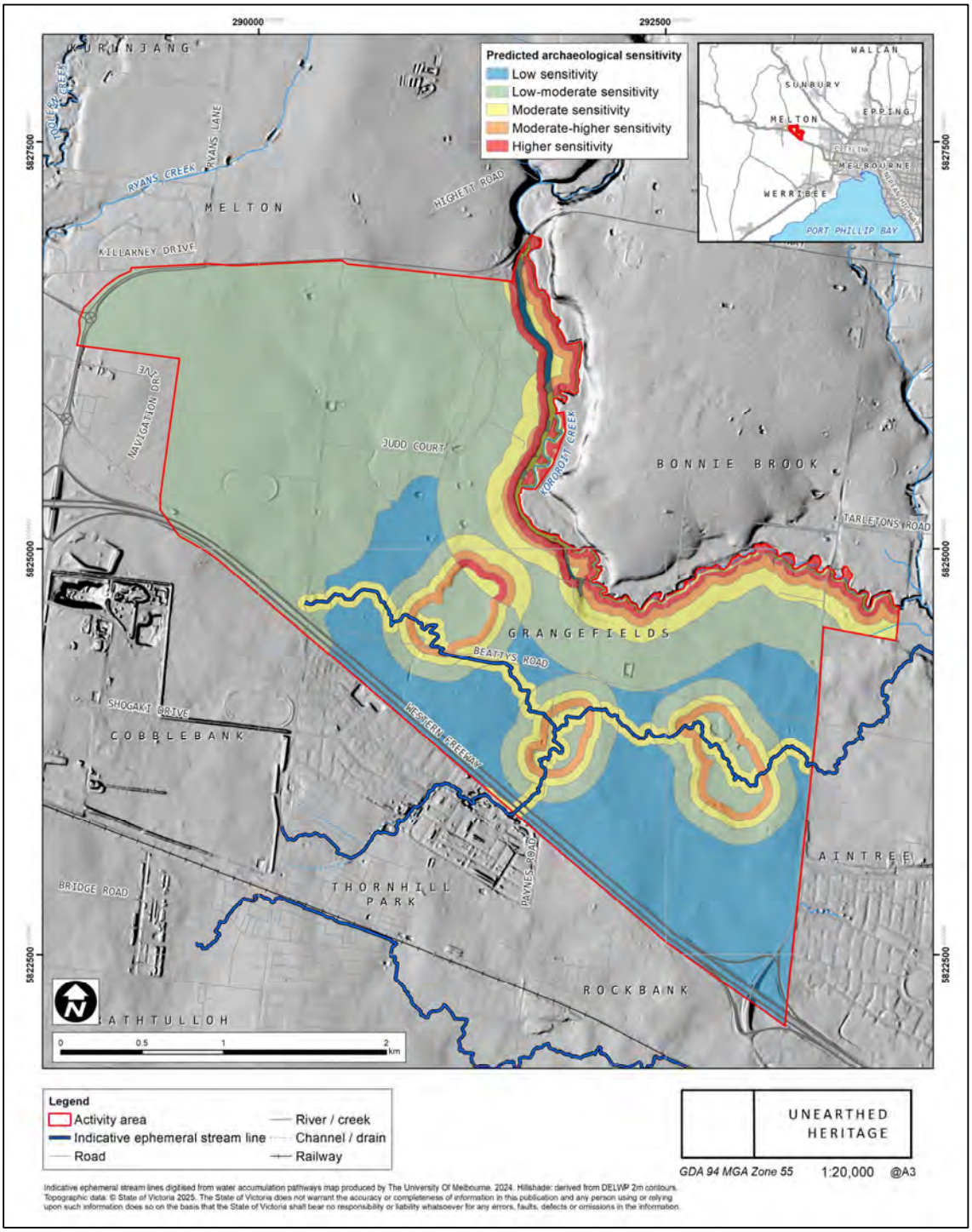


Figure 7-5 Archaeological predictive model –Overall sensitivity

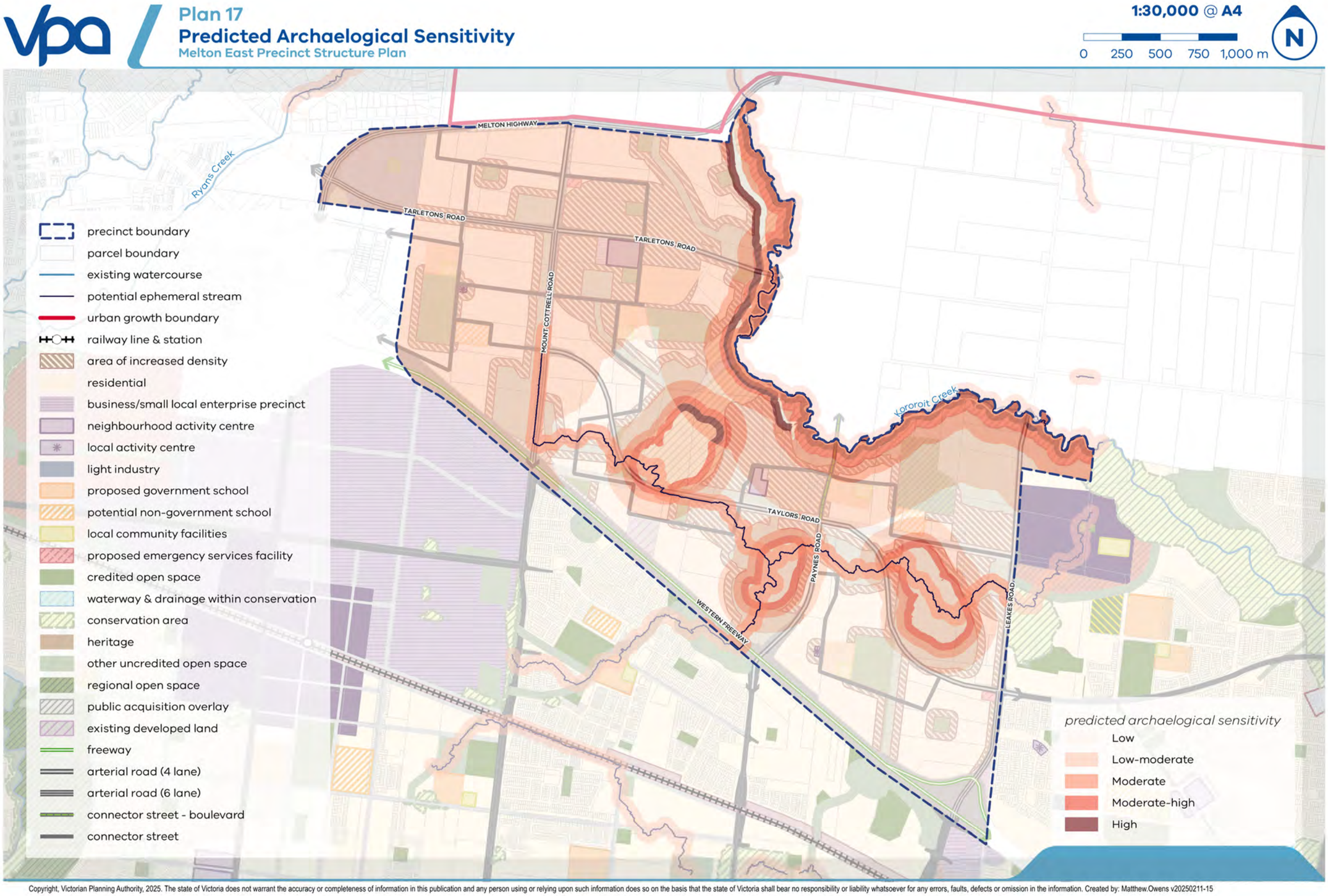


Figure 7-6 Archaeological predictive model – Overall sensitivity showing draft place based plan for the PSP

RAP Feedback

On 8 December 2022, Wurundjeri provided feedback on the predictive model. This feedback included a broad acceptance of the sensitivity model proposed but with the following understanding that the Elders (Wurundjeri Cultural Heritage Unit) wanted it made clear that they have concerns about the application of a low sensitivity rating to large portions of the PSP area. It was communicated that the Elders are aware that significant cultural heritage places can and have been found in areas that have been assessed to be of 'low sensitivity', including areas in the immediate vicinity of the Melton East PSP area. It was suggested that key point needs to be considered as the development of the PSP progresses.

Ongoing discussions and have were undertaken with WWCHAC, VPA and Unearthed Heritage over the course of the development of the ACHIS report. Feedback from WWCHAC as a result of these discussions and draft reviews have been included into this final report. Feedback from the RAP included comments relating to mapping and technical comments in addition to comments relating the proposed management recommendations and specific management recommendation wording. Draft documents of the assessment were provided to Wurundjeri at regular stages including those detailed below:

- 12 August 2022
- 15 August 2024
- 7 January 2025
- 4 February 2025
- 18 February 2025

8 Recommendations

8.1 Planning recommendations to minimise impact to Aboriginal cultural heritage

The predictive and known cultural heritage mapping shown on Figure 7-6 is designed to inform planning and design for development of the study area. The archaeological sensitivity ratings provide a guide in gauging risk of Aboriginal cultural heritage occurring and to make informed decisions about development design. Generally, the risk of impacting on Aboriginal places is likely to increase with scientific sensitivity, as is the risk of impacting larger, more complex and/or more significant Aboriginal cultural heritage values. As such, areas of higher archaeological sensitivity (greatest likelihood) are more valuable in terms of Aboriginal heritage, and also have higher levels of risk of development impacting Aboriginal heritage values.

These recommendations will protect a greater degree of areas that may have a higher potential to contain larger archaeological deposits and significant Aboriginal places, and also reduce the scope of costly and time-consuming archaeological assessment (test excavation) and mitigation measures (e.g. salvage). It is important to note that CHMPs regularly take 6-18 months to prepare and seek approval the RAP.

The following recommendations are provided for each archaeological sensitivity zone mapped in Figure 7-6:

Higher Archaeological Sensitivity (Highly Likely): These areas should be retained in their current form and, be rehabilitated to further stabilise them (such as from erosion). Works should be designed to minimise impacts and be placed largely on top of the surface, to avoid impacting below the ground surface. Future land use in the form of conservation land, passive open space or reserves is encouraged. Note: some localised impacts from essential activities such as bridge and road connections will be required

Moderate-High Sensitivity (Likely): Consideration should be made to retain these areas in their current form and rehabilitated to further stabilise them (such as from erosion). Works must minimise below ground impacts. Future land use in the form of conservation land, passive open space or reserves is encouraged.

Moderate Sensitivity (Neutral Likelihood): Development impact should be minimised. This could be through establishing passive open space (or similar).

Low-Moderate Sensitivity (Unlikely): interpretative material and or Wurundjeri language/naming should be incorporated into planning/design, in consultation with the RAP.

Low Sensitivity (Highly unlikely): interpretative material and or Wurundjeri language/naming should be incorporated into planning/design, in consultation with the RAP.

8.2 Proposed Kororoit Creek Bridge Crossings

As part of the assessment and consultation during the preparation of the ACHIA, the particular archaeological and cultural sensitivity of Kororoit Creek has been noted and discussed.

It is recommended that the VPA continue to consult with Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) about the nature and location of the likely Kororoit Creek Bridge Crossings.

8.3 Recommendations regarding CHMPs

Part of the intention of the CHMP process is the avoidance of harm to Aboriginal Cultural Heritage under Section 61 of the *Aboriginal Heritage Act* 2006.

Sponsors of CHMPs must consider harm avoidance to Aboriginal cultural heritage under Section 61 of the *Aboriginal Heritage Act* 2006. All proponents of activities must prioritise avoidance of harm to Aboriginal cultural heritage when considering development design and methodology.

8.3.1 Mandatory CHMPs

A mandatory CHMP must be prepared for properties where they are proposed for a high impact activity and they overlap with an area of CHS (consistent with the Aboriginal Heritage Regulations 2018).

The RAP (WWCHAC) would be the evaluating body for all CHMPs prepared within the study area and must be consulted and involved in fieldwork as part of the preparation of all CHMPs.

A CHMP can be prepared to cover single or multiple properties. Preparing a CHMP that covers multiple properties is usually more cost-effective.

Additionally, CHMPs are required for specific activities and it is a requirement to include all activity elements in a CHMP (e.g. housing, site offices/compounds, road installations and upgrades, crossovers, utilities and services, utility and service connections, drainage basins and outfalls, access, storage and laydown.

It is recommended that any CHMP prepared, be initiated at least 6-18 months prior to allow sufficient time for its preparation and approval – more time should be allowed for CHMPs covering larger areas. CHMP should be initiated early in the development process and the plan should remain flexible to ensure Aboriginal cultural heritage can be avoided in the first instance.

8.3.2 Voluntary CHMPs

For the properties that do not trigger mandatory CHMPs, voluntary CHMPs may be prepared to manage the risk of impact to potential Aboriginal places from any proposed subdivision and development. While not mandatory, this option would have several benefits to developers, such as providing certainty in relation to any proposed development regarding Aboriginal heritage, providing protection against strict liability offences in the *Aboriginal Heritage Act* 2006, and avoid potentially long delays should Aboriginal heritage be discovered during construction (which would then likely require the preparation of a mandatory CHMP).

For properties that do not have areas of CHS, it is strongly recommended that proposed high impact activity developments prepare voluntary CHMPs regardless of sensitivity but particularly where there are areas of Moderate, Moderate-High or High archaeological sensitivity within the proposed development areas (see Figure 7-6).

It is recommended that any CHMP prepared, be initiated at least 6-18 months prior to allow sufficient time for its preparation and approval – more time should be allowed for CHMPs covering larger areas.

Properties that do not contain any areas of High, Moderate-High or Moderate archaeological sensitivity, *could* prepare voluntary CHMPs as part of risk minimisation and to achieve improved cultural heritage management outcomes. Note that although unnamed or historical waterways are not afforded the same protections as named waterways under the Act, land within 200 m of unnamed waterways is still considered an area of cultural sensitivity by the Wurundjeri.

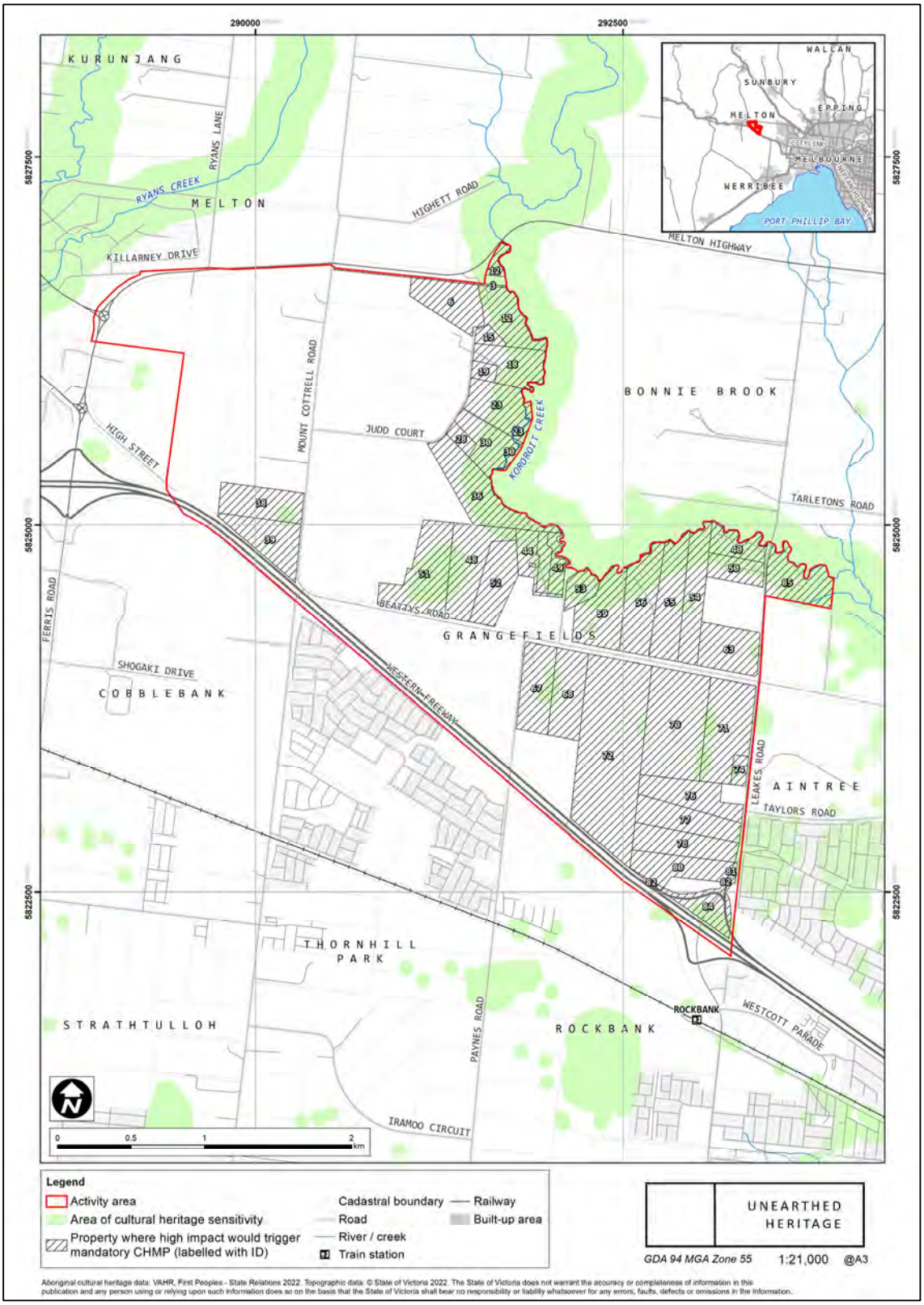


Figure 8-1 Areas of current cultural heritage sensitivity (CHS) and properties where a high impact activity would trigger the need for a mandatory CHMP

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Appendix A Glossary of terms

Activity Area: The area to be used or developed for an activity (CHMP)

Alluvium: Sediment laid down by flowing water

Chert: A fine-grained stone composed of cryptocrystalline silica. It exhibits a range of textures and colours. Chert is easy to work and retain a sharp edge for an extensive period of time before re-sharpening is required. It has a low to medium fracture toughness and is hence used for flaked stone artefacts.

Devonian: A geological period spanning from about 419 million years ago to about 359 million years ago.

Exposure: Refers to the percentage of the sub-surface exposed, through actions such as erosion or in excavated areas.

Flake: A stone piece removed from a core by percussion (striking it) or by pressure. It is generally identified by the presence of a striking platform, a bulb of percussion, and/or several other features not usually found on a naturally shattered stone.

Granite: Hard **i**gneous rock with that is granular in texture, mainly consisting of mica, feldspar and quartz.

Holocene: The Holocene epoch forms part of the late Quaternary period and extends from about 11,000 years ago to the present day.

Igneous: A rock of volcanic origin

In situ: A description of any cultural material that lies undisturbed in its original point of deposition.

Quartz: The second most abundant mineral on earth made up of a crystalline structure of SiO_4.

Scarred trees: Tree scars from Aboriginal cultural traditions are distinct from naturally occurring scars by their generally oval and/or symmetrical shape, and sometimes presence of steel or stone axe marks on the scar's surface. The size and shape of scars depends on the intended use of the bark removed. Bark was used for a variety of dishes and containers, shields, canoes, and construction of bark-slab huts.

Significant Ground Disturbance: Means disturbance of (a) the topsoil or surface rock layer of the ground; or (b) a waterway, by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping (to 60cm).

Silcrete: Soil, clay or sand sediments that have silicified under basalt through groundwater percolation. Silcrete ranges in texture from very fine grained, to quite coarse grained. At one extreme it is cryptocrystalline with very few clasts, with almost the appearance of chert. It is used for flaked stone artefact production, sometimes after heat treatment to increase the ease and predictability of its flaking.

Silurian: A geological period that spans between about 443 million years ago to 419 million years ago.

Study area: The area subject to this investigation – i.e. the Parwan Station PSP

Visibility: Refers to the degree to which the surface of the ground can be observed. This may be influenced by natural processes such as erosion, the character of the extant vegetation, and/or by land use practices, such as ploughing or grading. It is generally expressed in terms of the percentage of the ground surface visible for an observer on foot.

Appendix B Notice of Intention to Carry out a Survey

Notice of Intention to carry out a survey for Aboriginal cultural heritage for the purposes of the *Aboriginal Heritage Act 2006*

This form has been prepared for use by a person intending to carry out a survey for Aboriginal cultural heritage ('Survey') to complete the notification provisions pursuant to s.34A of the *Aboriginal Heritage Act 2006* (the 'Act').

For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-762-003.

SECTION 1 – Person intending to carry out survey (applicant)

Applicant (*natural person or body corporate seeking to carry out survey*):	Unearthed Heritage Australia Pty Ltd
ABN/ACN:	68632149181
Contact name:	David Mathews
Postal Address:	PO Box 446 Castlemaine VIC 3450
Telephone Number	0427 757 300 Fax number:
Mobile:	0427 757 300
Email Address:	david@unearthedheritage.com.au

SECTION 2 –Survey supervisor

Name: David Mathews, Joseph Brooke, Eyad Malaeb, Maddie Steele, Anna Light

Provide a description of the supervisor's qualifications and experience relevant to surveys for Aboriginal cultural heritage:

Joseph – BArch (Hons) 2006, and 16 years experience
David M – BArch (Hons) 2004, and 17 years of experience
Eyad Malaeb – BArch (Hons) 2019, and 4 years of experience
Maddie Steele – BArch (Hons) 2015 and 6 years of experience
Anna Light – BArch (Hons) 2001 and 21 years experience

SECTION 3 – Description of proposed activity and Survey location

Project Name: Melton East Precinct Structure Plan

List the relevant municipal district/s (ie, Local Council or Shire): City of Melton

Clearly identify the proposed **activity** for which the survey relates (ie, cultural heritage or due diligence assessment, preliminary Aboriginal heritage test, research):

Aboriginal cultural heritage impact assessment for PSP

Clearly identify the **location** (such as listing cadastral information, attaching a copy of a title search, or indicating the street address):

Melton East Precinct Structure Plan - Various properties – please see attached map

Attach a map (to scale, with a north arrow and indicating the municipal district - if any) that clearly identifies the survey area.

- Please ensure the map refers to existing roads and features, rather than proposed roads and features, and includes their names.

- Please ensure the map has the survey area outlined on it.
- The map should have a legend; at least three readily identifiable geographical locations (such as road intersections, parcel boundaries, or road/river crossings) and should state the map's projection.

SECTION 4 – Expected start and finish date for the survey

Start date 13 / 06 / 2022 *Finish date* 30 / 12 / 2022

SECTION 5 – List any relevant registered Aboriginal party (if any)

This section is to be completed only where there is a registered Aboriginal party in relation to the survey area

Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

SECTION 6 – Signature of applicant

I certify that to the best of my knowledge and belief that the information supplied is correct and complete.

Signed: _____ *Date:* 07 / 06 / 2022

[applicant]

SECTION 7 – Notification checklist

☐ Ensure appropriate attachment/s are completed and attached to this notification (see section 3 of this form).

Please ensure this notice and all attached items are sent to the:

Director Heritage Services
Aboriginal Victoria
Department of Premier and Cabinet
GPO Box 4912
MELBOURNE VIC 3001

OR **Email: vahr@dpc.vic.gov.au**

Notes:

- **Ensure that any relevant registered Aboriginal party is also notified. A copy of this notice may be used for this purpose. (A registered Aboriginal party is allowed up to 14 days to provide a written response to a notification specifying whether or not it intends to participate in the survey).**
- **In addition to notifying the Director Heritage Services and any relevant registered Aboriginal party, a Sponsor must also notify any owner and/or occupier of any land within the survey area. A copy of this notice may be used for this purpose.**
- **A copy of any documentation relevant to the survey must be given to the Secretary for recording on the Victorian Aboriginal Heritage Register within 30 days of producing the final report relating to the survey, or within 12 months of submitting this application, whichever is earlier.**
- **Relevant documentation means any site records, photographs, maps and plans relating to the survey and a copy of any final report.**
- **The applicant must notify the Secretary if the survey did not occur within 12 months of submitting this application.**

Appendix C - Language

Woiwurrung	English	Reference
Badjurr	Female	• Green in Smyth (1878)
Bajejenong	Footpath (path?)	• Green in Smyth (1878)
Balam-balam	Butterfly	• Green in Smyth (1878)
Ban-ding	Well (spring)	• Green in Smyth (1878)
Bargimboon	Beak	• Green in Smyth (1878)
Boleang	Bat	• Green in Smyth (1878)
Boollok	Swamp	• Green in Smyth (1878)
Boopoop / boopoup / booboop	Child	• Green in Smyth (1878)
Booboop narrkwarren	Family	• Green in Smyth (1878)
Boordup	Good	• Green in Smyth (1878)
Brarungun	Dawn	• Green in Smyth (1878)
Bren be-al	Rainbow	• Green in Smyth (1878)
Bullan-bullan	Lyrebird	• Olsen & Russell 2019: 87
Bulok-bulok	Hawk	• Green in Smyth (1878)
Dirrandirr	Egg	• Green in Smyth (1878)
Djeri (or jerri or jeri)	Grub found in the manna gum	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Eok	Eel	• Green in Smyth (1878)
Goolak-keni	Fishing	• Green in Smyth (1878)
Gurrnoong	Creek	• Green in Smyth (1878)
Jerrang	Leaf	• Green in Smyth (1878)
Jerrerr	Red	• Green in Smyth (1878)
Jeri (or jerri or djeri	Grub found in the manna gum	• Ellender & Christiansen 2001
Jerri (or djeri or jeri)	Grub found in the manna gum	• Howittt 1904: 70
Juraweit	Mount Macedon	• Howittt 1904: 70
Kalk	Forest	• Green in Smyth (1878)
Kannan	Long, fire-hardened digging stick carried by women	• Ellender & Christiansen 2001 • J.Cotton painting
Keert-keerrt	Fishing net made from stringy bark	• Smyth 1878: 390
Kerang	Gum	• Green in Smyth (1878)
Koolein	Man	• Green in Smyth (1878)
Koorong	canoe	•
		•
Malloren	Fish	• Green in Smyth (1878)

Manerlong	Bee	• Green in Smyth (1878)
Marmun	Father	• Green in Smyth (1878)
Meeng-gip	daughter	• Green in Smyth (1878)
Merri merri	Rocky (very rocky, place of many rocks)	• Ellender & Christiansen 2001 • https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Miam	hut	• Ellender & Christiansen 2001
Mirrm	Kangaroo	• Green in Smyth (1878)
Murnmurndik	Young girl	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Murrumbung-uttias	Old spirits	• Howitt 1904: 427
Nangabeek	Bake	• Green in Smyth (1878)
Ngaruk	Stones, rocks, stony or rocky	• Howitt 1904: 70
Ngarrin	Beard	• Green in Smyth (1878)
Nilim	Bad	• Green in Smyth (1878)
Nira	Cave or a hole in the bank of a creek	• Howitt 1904: 70
Noogal	Belong	• Green in Smyth (1878)
Noorrong	Flour	• Green in Smyth (1878)
Quuap	Food	• Green in Smyth (1878)
Queep-queep	Birds	• Green in Smyth (1878)
Tangarrbea	Eat	• Green in Smyth (1878)
Tarnuk	Wooden drink container made from knotty growth of tree	• Ellender & Christiansen 2001
Tarnuk bullito	Very big tarnuk	• Ellender & Christiansen 2001
Tongberang'i	Birth	• Green in Smyth (1878)
Toorroo	Bait	• Green in Smyth (1878)
Toorrop	Lizard	• Green in Smyth (1878)
Turrt (turrt-pirm)	Star (stars)	• Green in Smyth (1878)
Walert	Possum	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Walen-walen	Spherical/round	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Walla-walla	Lots of rain	• http://www.tourisminternet.com.au/chdoma10.htm
Wallan-wallan	A circular piece of ground covered with rain water	• http://www.tourisminternet.com.au/chdoma10.htm
Ween	Fire	• Green in Smyth (1878)
Willam (or wilam)	Shelter/living place	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/ • Ellender & Christiansen 2001
Woi	The way words are pronounced	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/

Wonguim	Boomerang	• Ellender & Christiansen 2001
Woobedin	Sorry	• Green in Smyth (1878)
Woorrwrren / Woorwarreen	Green	• Green in Smyth (1878)
Woorree-kalk	Log	• Green in Smyth (1878)
Wurrung	Language	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Wurun	Manna gum (white gum)	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/ • Howitt 1904: 70 • Ellender & Christiansen 2001
Ya-ang-gim	Light	• Green in Smyth (1878)
Yan yan	Young boy	• https://www.whittlesea.vic.gov.au/about-us/our-city/local-aboriginal-history-wurundjeri-willum-people/
Yeadabilin	Fond (to love)	• Green in Smyth (1878)